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**THROUGH THE HEART
OF THE SCENIC WEST**

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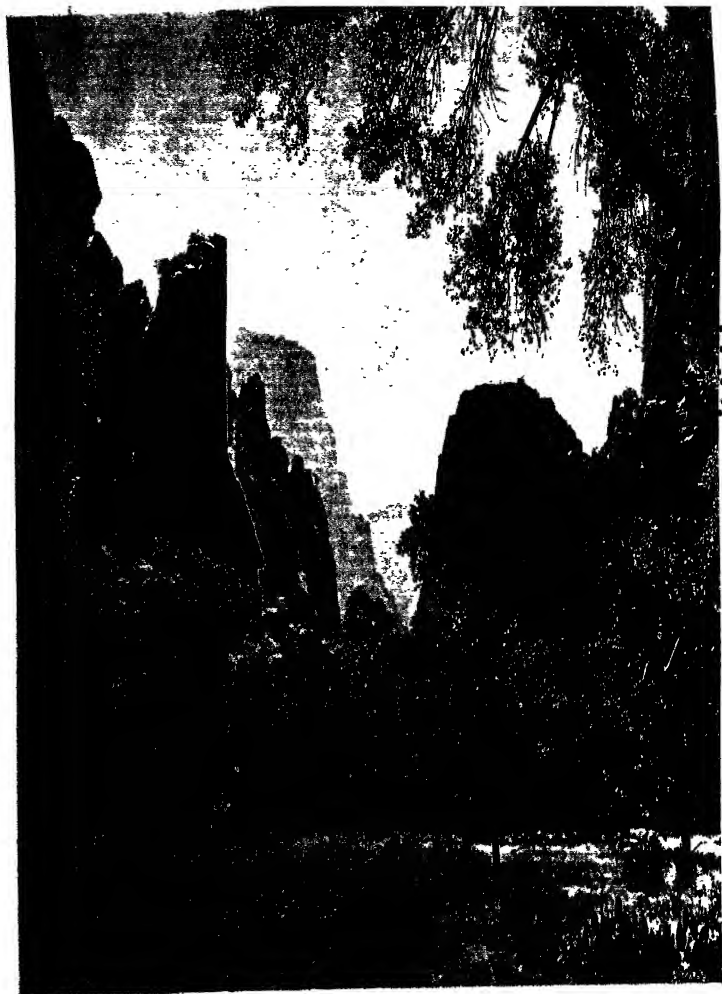


Photo by Albert Wilkes

Temple of Sinawara, Zion National Park

THROUGH THE HEART OF THE SCENIC WEST

By
J. CECIL ALTER

Author of
"JAMES BRIDGER, a Historical Narrative"

With 65 Illustrations

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P R E F A C E

WHILE filling an official assignment at Salt Lake City during the past several years, the pursuit of business and the quest of vacation adventure have taken me repeatedly into the fastnesses of the Wasatch Mountain country, from Yellowstone National Park to The Grand Canyon of Arizona.

As a consequence many travel narratives from my field notebooks appeared in the *Salt Lake Tribune* and other periodicals. Some of those stories have been rewritten for use herein, though most of these travelogs are new.

My own pictures have been largely replaced by the very best photographs of the subjects in existence, furnished for this work by the professional and other expert photographers whose names are shown with the plates. My gratitude is extended to these publishers and photographers for the use of the materials mentioned.

This particular volume is personally inscribed with the hope that its perusal may bring to the reader a measure of the pleasure that the rambles recounted have brought to me. In a limited, special edition of one thousand copies, this volume is
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March, 1927.

Heard Allen

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Through the Heart of the Scenic West

CHAPTER I

THE MORMON MECCA

AS we entered the Mormon Temple Block through a gate in the massive inclosing wall, the view of the huge, turtle-shaped Tabernacle, outlined through the trees, and of the stately Temple, towering behind a tree-banked lawn, gave us a sense of awe and respect for the place. This sentiment was heightened by a party of tourists who were filing out of the Bureau of Information building at the gate-

...a city block is inclosed by the guide, was saying; "built in privacy for the buildings and twelve feet high and three

...allowed on These Grounds," a sign from a conspicuous sign. "This is a ten-acre park!" he observed;

...also discouraged by the Church

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among its members everywhere," commented the guide, who we understood was a local business man.

Rising from a thirty-foot lily pond is a beautiful Doric column of marble, surmounted thirty feet aloft by a fluttering group of gilded sea gulls. "The only monument of the kind known to have been erected in honor of bird life," the guide remarked. "The Sea Gull Monument," he read from the bronze tablet, "erected in grateful remembrance of the mercy of God to the Mormon Pioneers."

We were absorbed in the guide's touching narrative: famine had threatened the Pioneers in 1848 when their first precious crops were being consumed by swarms of crickets. The people prayed for divine assistance and were gratified by the coming of the gulls, the heavenly messengers, from the islands of the Great Salt Lake. The gulls quickly exterminated the insects, and thereafter held them in subjection. The plight of the Pioneers and their miraculous rescue, is pictured in the bronze relief sculptures on the base of the monument.

The Assembly Hall, a church frequently used for public lectures on humanitarian subjects, though, according to its chief use is for Mormon religious services in foreign languages, particularly English, Italian, Spanish, Russian, Polish, Lithuanian, German, and Welsh. "Most of the Mormons are residents of Utah, though there are large colonies in Idaho, Wyoming, Colorado, Arizona, Nevada, California, Hawaii, and in Mexico. Can-

ada and other states and foreign countries," the guide informed us.

Speaking of the Church organization, he said the Church Presidency consists of the president and two counselors. There are also twelve apostles in conformity with the primitive church organization. The presiding bishop has charge of the temporal affairs of the Church generally, while the approximately one hundred stakes or major subdivisions are each presided over by a president and two counselors. Under these are about nine hundred and fifty wards, each presided over by a bishop and two counselors. Under these in turn are the elders' quorums, young people's societies, choir and committees, all functioning together under bonds of authority.

There are seventy-five or eighty independent branches of the Church, not yet organized into wards; twenty-five or thirty missions, and about seven hundred and fifty mission branches. More than two thousand five hundred missionaries are in the field, many in foreign countries. Men are usually called on missions, though women are also called for duty in the home. Each missionary serves from two to three years. The guide hopes that if any of the people ever visited by the missionaries, they will be welcomed.

Each ecclesiastical ward has a chapel, with which is usually incorporated a dance and amusement hall, with motion picture equipment, and stage for amateur theatricals. This gives the bishop direct supervision of the activities of

the young people. Monthly visits are made by the ward teachers to every Mormon family, and often to other families, to inquire into their material and spiritual condition and to give aid of any kind needed.

The Church is supported by the tithing system, by which each communicant voluntarily contributes one-tenth of his earnings or income. No regular collections are taken. A Fast Sunday is observed each month and the value of the food thus saved is given to the poor; and the guide assured us that Church members are also very generous toward the Relief Society, and to special donations, chests, chapel, organ, picture-machine, radio and other funds.

"I wouldn't make a very good Mormon at that price," a tourist shook his head.

"Well, I think you would," the guide remarked; "and I believe you would expend one or two thousand dollars apiece to send your children on missions, possibly taking them out of college or away from a paying position or business. I also believe you would go on a mission yourself, if you were as sure as these people are that this is the true religion."

"The Tabernacle, seating nearly ten thousand persons, was erected during the years 1863-7, before the railroad came," the guide turned to his regular story as we moved toward this building. "The smooth, oval roof, ten feet thick, rests only on piers in the outer wall, being supported by a series of wooden truss arches, framed and held together by wooden pins and some rawhide. No

nails or other iron was used in the original roof construction."

On entering we found the seating throughout to be in plain, uniform benches, the furnishings originally installed, we were informed. The three pulpits, and the various sections of seats near them are for the various Church authorities according to rank. Tabernacle religious services are held every Sunday afternoon; the various ward services are held Sunday morning and evening.

The Tabernacle is also generously loaned by the Church authorities for important musical concerts by world famous musicians; and free organ recitals are given daily for tourists. Presidents Theodore Roosevelt, William H. Taft, Woodrow Wilson and Warren G. Harding have spoken from the highest of the three pulpits, the guide recollected.

"We have no regular preachers or speakers, but the presiding officer in our Church services (the Bishop in the ward chapels and the higher authorities in the Tabernacle) very often call speakers from the congregation without previous notice. All Church members are presumed to be sufficiently versed in theology and doctrine properly to expound it," he continued.

"Please note the Bible, the King James version, on each pulpit," indicated the speaker. "The same Bible you all probably use. The other books are the Book of Mormon and other sacred Mormon works. The Book of Mormon is an historical record of the ancient inhabitants of this continent,

being the history of a colony which left Jerucalem about 600 B. C. and journeyed to America. The history of these people was engraved in Hebrew and Egyptian characters on metallic plates, which were handed down through the generations of prophets."

"One prophet, named Mormon, compiled all those records, and his son Moroni hid the plates in Hill Cumorah in what is now western New York State. It was Moroni who revealed to Joseph Smith, the latter day prophet, the hiding place of this unique record. Joseph was enabled to translate the record by means of a Urim and Thummim found with the plates; and he published the Book of Mormon in 1830," according to the guide.

The Tabernacle pipe organ is one of the largest and finest in the world, though first built in the early days, we were informed. Most of the special wood for the original pipes and cabinet work was obtained from the mountains near Parowan and Pine Valley, Utah, more than two hundred and fifty miles southwest of Salt Lake City, whence it was transported by ox teams. There are now about seven thousand five hundred speaking pipes, he told us, ranging from five-eighths of an inch to thirty-two feet in length. The choir is one of the largest regular church choirs in the world, according to the speaker, the three hundred singers serving free. Four expert organists preside in rotation.

The guide could not play the organ for us, he said, but if we would gain an idea of the power



Mormon Temple Block, Salt Lake City

Photo by H. C. Wilson

of a thirty-two foot organ pipe in this extraordinary acousticon we would please follow him to the far end and hear the pin drop. An attendant took a position near the pulpits while we gathered in the rear gallery. Poising the pin carefully about a foot above an ordinary felt hat lying in plain view on the balustrade, the attendant let it go, bang! No, it really did not make a loud report; but there were no other sounds and it was distinctly heard.

The pin was dropped on the bare railing, where it resounded like an eight-penny nail. The attendant, a Tabernacle workman, then rubbed his hardy hands together, the sound from where we sat resembling the rubbing together of sand-paper blocks. He then turned his back upon us and whispered, "Can you hear me now?" The wave of understanding smiles which swept the small audience indicated that the extraordinary demonstration was clearly heard and understood, though, according to the attendant, we were nearly two hundred feet apart.

"One of Brigham Young's first acts after reaching this valley with the Pioneers in 1847 was to visit Ensign Peak, north of the city," the guide took up the narrative as we moved outside and to a position near the Temple. "Viewing the valley from that eminence, which he had seen in a vision, he then rode to this spot. Striking the ground with his cane, President Young declared: 'Here is where we will build the Temple of our God.' A subordinate drove a stake in the ground where President Young indicated. Thus was the

Temple site marked and the city laid off uniformly around it."

The Temple architecture is unique, and, according to the story, was roughly designed by Brigham Young, though as was the case with the Tabernacle, the details were worked out by a Mormon architect. The Temple was forty years in building, the work progressing slowly in the early days because of the impoverished condition of the Saints. Brigham Young did not live to see the edifice take its full form.

"The entire cost, including the annex and improvements, has been about four million dollars," said the guide. Other temples are in use at St. George, Logan and Manti, Utah; Honolulu, Hawaii; Cardston, Alberta; and Mesa, Arizona—the guide named them in their order of construction. Other temples will be erected when they are needed, he said. Temples were built at Kirtland, Ohio, and Nauvoo, Illinois, but were destroyed or abandoned when the Saints were driven from those states many years ago. The largest and grandest of all temples will be erected ultimately, according to Mormon prophecy, at Independence, Missouri, near Kansas City. "This is to be the final gathering of the Saints in preparation 'for the glorious coming of the Lord Jesus Christ,'" he told us.

A human figure clothed in gold leaf, blowing a trumpet from the east central Temple spire, two hundred and twenty-two feet from the street, represents the Angel Moroni, who guided Joseph Smith to the golden plates, we were told. "The

prophet Joseph Smith, through his revelations, some direct by the voice of Jesus Christ, and others through heavenly messengers or divine inspiration, reëstablished the true Church on earth, now known as the Church of Jesus Christ of Latter Day Saints, nicknamed the 'Mormon' Church from its Book of Mormon."

"The Temple is to the Latter Day Saints what Solomon's Temple was to the devout Jews: a holy place, devoted to sacred ordinances. Here are performed baptisms for the dead and marriages for eternity," said the guide. "The living are baptized as proxies for their deceased ancestors, as far as their genealogies can be traced, making the ancestors eligible for redemption in the hereafter. Ordinances performed for the dead last year numbered about a million. Recommendations for Temple work were issued to more than fifty-five thousand persons."

"Ordinary marriages 'until death do ye part' are always performed, but a special sacred ceremony for Latter Day Saints usually takes place in the Temple, where the couple is sealed for eternity," the guide closed his regular story.

"How about polygamy?" a lady in the audience voiced the inquiry.

"Now, I am very glad you asked that question," said the guide confidentially. "We do not usually mention the subject unless asked about it; but you may be sure we are glad to give you the facts. The 'Revelation on the eternity of the marriage covenant, including the plurality of wives' was given to the prophet Joseph Smith, just as were

all other tenets and principles of the Mormon faith."

"This patriarchal marriage system of the ancients was practised for nearly fifty years; but after much suffering due to prosecutions, fines, imprisonment and some deaths, the manifesto was issued by the president of the Church, indicating it to be the will of God that polygamy should be discontinued," said the guide. "This complies with the twelfth article of the Mormon faith which says, 'We believe in being subject to kings, presidents, rulers, and magistrates, in obeying, honoring, and sustaining the law.'"

The guide could not show us through the Temple, not because its interior is secret, but because it is sacred. Only Mormons in good standing, and bearing recommendations from their bishops, are admitted to the building.

At the life-size bronzes of Joseph and Hyrum Smith, the martyred Mormon brothers, the guide related the tragic story of mob violence, which culminated, on June 27, 1844, in forcing the Mormon leaders from a jail at Carthage, Illinois. They faced a group of frenzied assailants and were shot to death, Joseph aged 39 and Hyrum 44. After that the Mormons, under the leadership of Brigham Young, emigrated to Utah in quest of religious freedom, establishing this city and founding this state, briefly his story ran.

The oldest house in Salt Lake City, a one-room shanty of logs with slab roof, is preserved under a pergola in a corner of the Temple yard. Many other relics of pioneer Mormon history are

displayed in the extensive Latter Day Saints' Museum. These objects silently but interestingly depict the hardships through which these people rose to their present prosperity. The cliff dwellers' section of the museum contains many mummified bodies with their sepulchral wrappings of fur and feathers. There are also the tools, utensils, weapons and ornaments used by these early people of whom the Book of Mormon treats.

It was nearing noon as the tour ended; a crowd was already gathering about the Tabernacle door for the daily organ recital, and we gladly joined them and filed inside. The master of ceremonies announced that the doors would be locked during the recital, to prevent interruption; and asked those to retire who could not remain through the program.

Our study from the rear gallery seats of the unique Tabernacle interior was suddenly stopped by a crashing chord from the enormous organ. The Star Spangled Banner, opening number on all programs we understood, then floated across the vast auditorium from the organ, while we stood in patriotic and inspired silence. A classical selection, very fascinatingly interpreted, earned the applause of every one, but did not get it for the reason that the Tabernacle is a house of worship and applause therein is considered inappropriate.

The echoes of someone's whispering rebuked the whisperer to an apologetic silence, when the versatile organ performer carried us away on the harmonies of a pleasing Mormon hymn. This was

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played in three different effects or organ combinations, possibly the better to fit the verses printed on the program. Another thunderous classic, with profound, petite, petulant and pathetic parts, commanded a careful following for its very versatility.

The Old Melody was a most exquisite thing. Such ingenious, such soothing, and such satisfying effects in "Annie Laurie," I am sure were never sensed even by its author, as came rolling out like new-born music from the rich throats of the wonderful organ. The *vox humani* pipes or human voice tones, in a rich, resonant quartet, were accompanied superbly by the orchestral and other organs, while we peered into the organ recesses for the real men singers!

CHAPTER II

SEEING SALT LAKE CITY

"WE are starting on a journey through one of the most interesting historic cities in the West, the home of the Mormons," came out of the loud speaker as the sightseeing bus moved eastward on South Temple Street from the Temple Block entrance.

A red sandstone skyscraper at Main Street, according to the projected voice of the driver, was built for the *Deseret News*, one of the oldest newspapers west of the Missouri River, published since 1850 by the Mormon Church.

Pioneer Monument in the street intersection is a granite shaft supporting a bronze figure of Brigham Young. The distinguished Mormon leader faces southward on a busy traffic throng and a long lane of skyscrapers. A generous left hand is extended toward Zion's Savings Bank & Trust Company, organized by him, and one of the soundest financial institutions in the West. Subordinate bronzes on the monument are a fur trapper, resembling James Bridger, and an Indian in native habiliments, said to resemble Washakie, a Shoshone chieftain, both typical of the predecessors of the Mormons in these valleys.

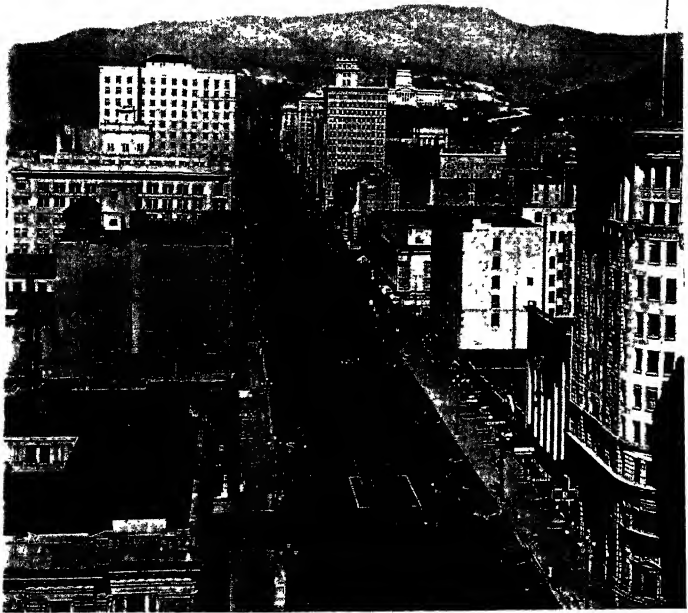
The Hotel Utah, finished attractively in white glazed terra cotta, was built by Mormon capital-

ists, according to the guide. Beyond a tennis court is the Deseret or Mormon Gymnasium, an unusually large and well equipped institution, for both men and women.

A magnificent granite edifice four stories in height, with a complete colonnade of lofty pillars, is the Latter Day Saints Church administration building, a very stately example of pure Greek architecture. In it are the offices of the Church presidency, and many other Church officials; also an exceptionally fine library. Visitors are welcome, the guide assured us.

"The Lion House," was the next announcement, "built in 1855, as the home of several of Brigham Young's families." This is a narrow, two-story, plaster-covered house extending more than a hundred feet back from the street, and distinguished by ten or twelve uniform dormer gables on each side of the low roof. "The first apartment house in the city, and the place of President Young's death," concluded the guide. A prostrate lion carved above the front portico is suggestive of "The Lion of the Lord," a title sometimes given to Brigham Young, we understood.

Next on the east is the large, two-story, plaster-covered Beehive House, with a beehive cupola. "The Beehive House was for many years the executive mansion of Brigham Young, and the home of some of his families," said the driver. "The beehive is the principal emblem in the Utah state seal." A heavy iron chain sags from a graceful line of granite posts at the curb. It was used in the early days as a hitching rack for horses and



Photos by Albert Wilkes

Historic Mormon Buildings and Eagle Gate; and a Main Street View,
Salt Lake City

oxen, according to the story, being a significant reminder that Brigham Young did not own an automobile.

Eagle Gate, near the Beehive House, is an oddly shaped arch straddling State Street. Resting on four masonry pillars, its four legs support a large eagle above the street.

"When first erected in 1859 the archway was closed by a gate," said the speaker, "marking the entrance to City Creek Canyon, and to Brigham Young's private estate. Early day Salt Lakers entering the canyon for wood, coal, stone or other supplies usually paid a toll in cash or kind at this entrance."

"South Temple Street was for many years nicknamed Brigham Street, because Brigham Young owned so much of the frontage," remarked the guide. Today, club houses, fraternity homes, non-Mormon churches, apartment houses and palatial homes proclaim a new occupancy, extending the street a mile or more beyond Brigham's original holdings; but it is still the city's aristocratic thoroughfare.

We gained only glimpses of the Alta Club, University Club, Elks Home, Knights of Columbus Club House, several apartment houses, the Catholic Cathedral of the Madeline, First Presbyterian Church, Jewish Community Center, Second Church of Christ Scientist, the Masonic Temple, Ladies' Literary Club, Holy Cross Catholic Hospital, and the palatial residences of a dozen or fifteen wealthy persons, mostly non-Mormon mining men, including George H. Dern, Utah's Governor.

These places the guide named briefly as we passed.

"Little solace for Brigham Young," exclaimed a tourist; "the non-Mormons seem to have taken his part of the city."

"The non-Mormons have taken practically the entire city in that manner," replied the guide. "Only forty-four per cent of Salt Lake City's population is accounted for on the Mormon Church roll books. However, the majority of the actual church-going people in the city are Mormons; and the Mormons still predominate in the state, with about sixty-two per cent of the census figures."

"There are eighteen religious denominations represented in the city by congregations and edifices," the guide continued. "Out of a total of one hundred and five congregations within the city proper, fifty-two are Mormon. There are eight Methodist, seven Baptist, five Lutheran, four Roman Catholic, Episcopal, and Presbyterian, three Congregational, Hebrew and Non-Sectarian, two Christian Science and Unitarian (one of them Japanese), and one each of eight others. The Hellenic Orthodox, or Greek Cathedral, is one of the finest church buildings; and there are six or seven other foreign language bodies."

"Salt Lake City's blocks are forty rods square," the guide changed the subject, "each block containing ten acres. There are seven blocks to a mile, including the cross streets. Brigham Young originally planned this to be a sort of agricultural community center. Thus only eight families were allotted to a block, with one and one-quarter acres

of land apiece. The smaller tracts close in were let to artisans and tradesmen, while the larger tracts farther out were let to truck growers. The people drew lots for their locations, but did not own the land; when they moved they could remove only their personal property."

The Wasatch School reminded the chauffeur that "Utah's best crop has always been her babies, the yield being the largest per family in the United States. The birth rate among the Mormon people last year was thirty-two per thousand population; for Utah it was about twenty-nine, and for the United States a little over twenty-two," he said. "The public school census for Salt Lake City, of children between the ages of six and eighteen years, is about twenty-six per cent of the total population."

South Temple Street terminates in a spray of winding avenues in Federal Heights and Bonneville-on-the-Hill. These are exclusive residence sections which overlook the city and the valley like box seats above a theatre pit. Southward by the University of Utah campus, and for two or three miles beyond, we threaded other choice residence districts overlooking the city generally from their bench sites, and being overlooked by the wonderful Wasatch Mountains.

Returning northward again, on Thirteenth East Boulevard, also a rich residential section, the driver, in passing, indicated Westminster College, East High School, the Sarah Daft Home and other beautiful places. In the northeastern part of the city, much of which from a distance had seemed

to be plastered against the mountain slope, the streets are narrower and the blocks smaller. This section, now considerably enlarged, was originally the estate of Brigham Young.

While passing the Twenty-first Ward Mormon Chapel, the guide was reminded that "The Twentieth Ward jurisdiction is adjacent to the northwest, and is presided over by Bishop C. Clarence Neslen, Mayor of Salt Lake City. The Mormon bishops are usually prominent and successful business men."

The bus drew up on the brow of a hill, at a lonely, grassy acre within a strong fence of stone and iron. It was Brigham Young's private cemetery, within sight of the Temple spires, and within a stone's throw of the Beehive House. His grave is in the far left corner under a great granite block, on which is an iron guard fence. Nearby are the graves of three of his wives, five children and a mother-in-law. "Further burials here were prohibited by city ordinance," said the guide, "the rest of the wives being buried elsewhere, mostly with their relatives. President Young died in 1877, aged seventy-six years."

The Episcopal Girls' Friendly Lodge is across the street. A modern garage farther down the hill was formerly Brigham Young's private stables. Fragments of the old cobblestone fencing or property wall were seen as we turned south into State Street—walls so constructed because stone was more plentiful than timber and labor was cheap in the early days, according to the guide.

The Bransford Apartments, at our left, occupy

the site of the private school maintained by Brigham Young for the sixty-five children in his family, thirty-one daughters, twenty-five sons, and nine adopted children. So the driver told us as we passed under the quaint Eagle Gate. The Public Library forms a beautiful picture among the trees. Next to the Library is the skyscraping Belvedere Apartment Hotel, the finest and largest in the city, and owned by the Mormon Church.

The historic Salt Lake Theatre, a much weathered, two-story building of Spanish adobe, is one of the oldest theatres in the United States still in use, related the driver. It was erected under Brigham Young's direction, in 1861-2. Maude Adams, the actress, was born in Salt Lake City, and made her first appearance on the stage of this theatre as a baby in arms, according to the story. Sixth East Street is one of the wide thoroughfares having a parked greensward down the middle; it ends at the principal city park.

"Liberty Park, comprising eight city blocks, is a public playground, floral gardens and menagerie," explained the guide as we took our place in the traffic procession on the outer Park Circle drive. "The tract was once owned by Brigham Young and was used by him as a pasture, mill site, and summer home." We observed that the mill ponds are now used for boating sports and for wild fowl exhibits. The old grist mill house, with iron date figures in the gable, 1852, was apparently used as a tool house, and Brigham's old home is still occupied as a residence, labeled "Park Superintendent."

On the way back to the city's business district the guide explained the city's singular street naming system.

"It is the simplest of all systems," he declared. "The streets are named and numbered from the Mormon Temple Block. The street east of the Temple is East Temple Street (nicknamed Main); the next one is First East Street (nicknamed State); the next Second East, and so on. The street south of the Temple square is South Temple, next First South, and so on, the same order being followed to west and north of the square. We are now going north on South Fifth East, nearing the intersection of East Fifth South; can any one tell me where we are? We are five blocks east and five blocks south of the Temple."

The City and County Building, a very attractive specimen of French architecture, is still a handsome edifice after nearly forty years' service. Its ten-acre yard was for many years called Emigration Square, being then used as an encampment for emigrant Mormon converts, pending the decision as to their permanent abode. It was thus the city's first public tourist camp. The Newhouse Hotel is a stately, modern skyscraper near the lower end of the business district, on Main Street.

Main Street is the city's Great White Way, twelve feet wider than San Francisco's Market Street, though uniform in width with other Salt Lake streets. Its handsome electroliers obviously beautify by day as well as by night; and its generous width, as we noticed, allows automobiles to park at an angle on both sides, yet provides ample

space for automobile and street car traffic in both directions.

There are a dozen or fifteen office buildings in the busiest half mile of Main Street, scraping the sky at from eight to sixteen stories. These the driver said were mostly memorials to men who had made their millions in Utah mining, industrial and commercial operations. Zion's Cooperative Mercantile Institution, or as usually written, Z. C. M. I., Mormon department store, is claimed to be the world's first department store, *per se*, established by direction of Brigham Young in 1869-70. But both Walker Brothers Dry Goods Company and Auerbach Company, non-Mormon owned and now department stores, are older than the Z. C. M. I.

The presiding bishop's office, or Tithing Office of the Mormon Church, is a substantial brick and stone structure north of the Hotel Utah. A new view of the Mormon Temple from the front is gained from here. Its panels and spires seem to reach far into the sky. A legend in gold letters, under an All Seeing Eye engraved in the granite high aloft, reads: "Holiness To The Lord; The House Of The Lord. Built by The Church Of Jesus Christ Of Latter Day Saints. Commenced April 6, 1853. Completed April 6, 1893."

At the capitol grounds we obtained a view down State Street, cleaving the business district, the forest of city shade trees, and the valley farms twenty miles to its first turn in the south end of the valley. The thoroughfare is a part of the Zion Park Highway, paved for ninety-seven miles, "the

Broadway of Scenic America," the guide proudly announced.

Ahead of the bus across City Creek arroyo is the cylindrical, slit-eyed Tourist Tower, "one of the conspicuous objects in the city for fifty years." In the corner of the capitol grounds is the Mormon Battalion Monument, a very elaborate and expensive memorial to the Mormon participants in the Mexican War.

The State Capitol occupying a very prominent position above the city at the north, is unquestionably one of the most beautiful capitols in the United States. The chaste aspect of the magnificent structure seems symbolic of the rare fact that three million dollars was appropriated to erect it, and about ten per cent of the amount was left in the state treasury, as an evidence of the honesty which dominated the construction work, according to the guide. "Not a stone nor a fixture has been soiled by the hand of graft," he said.

The Hall of Relics, in the capitol basement, turned our thoughts to the distant yesterdays in Mormon history. The wooden ox yoke, the tens of thousands of which, on the necks of plodding work cattle, drew an empire westward in the fifties and sixties, has been appropriately reproduced in gold as the badge and emblem of the Utah Daughters of the Pioneers, a member of which organization was in charge of the display.

A battered stage coach, dusty from the Road to Yesterday, is as full of historic memories as it is of cracks and holes. A frail spring wagon with

bows for a canvas top was a royal coach in its day, belonging to Brigham Young, according to the statement. In it he first journeyed to Utah and held his councils on the way; and from it he first viewed this valley.

Flimsy hand-carts recalled the passage in the late fifties of several thousand Mormon emigrants from the Missouri River to Utah on foot. Their only belongings, and often their infants and sick, were carried in these fragile push-carts, according to the attendant's explanation.

But the emigrating Mormons were obviously a joyous and a hopeful people, for in this meagre historical collection are several organs, melodeons, and even an antiquated grand piano, said to be specimens of the scores that came over the mountains in wagon trains ahead of the railroad. Following our guide upstairs through the magnificent marble corridors, we passed outside.

From the capitol balcony an extraordinary landscape unrolls its lively surface as a figured scroll. Sagging with the weight of industry, the valley is a golden landscape canvas, framed in lofty mountains and resting on the easel of Capitol Hill. The lattice of valley farms and highways expands to the mountain slopes, while the city and its environs occupies the foreground.

A wreath of arboreal figures encircles a centerpiece of business blocks in bas-relief; trellised roof-gardens, spacious apartments and beautiful hostleries beckon a homelike welcome; and reverence, refinement and repose, embodied in the Temple, the University and Fort Douglas, are

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emphasized in fitting environments. From this dignifying viewpoint, the "City of the Saints" is indeed a resplendent City Four Square, a fitting adornment for the center of scenic America.

CHAPTER III

INTO THE WASATCH CANYONS

A SHORT distance through Eagle Gate the winding roadway carried us into the shady groove of City Creek Canyon, whence, we are told, issued the historic waters that gave birth to irrigation in this arid West. Memory Park, for World War victims, is just above the residence-choked throat of the Canyon.

Then comes the bewitching wilderness of primitive trees thatched by masses of native brush. The way is laced by inviting pathways and shady lovers' lanes beside the picturesque automobile roadway, and marked by grassy picnic amphitheatres, with orchestras of birds and purring waterfalls. Rotary Grove, a popular trysting place, is a parking in the trees at the forks of the stream, some eight miles from the city. From here we turned back.

As we emerged from the Canyon we halted on the lofty brink at the end of the Wasatch Boulevard, opposite and above the capitol, for a view. Southwestward is the bulky Oquirrh Mountain headland at the greenish shore of Great Salt Lake; and westward is a water-leveled plain ending at Great Salt Lake with its fleet of lofty islands at anchor.

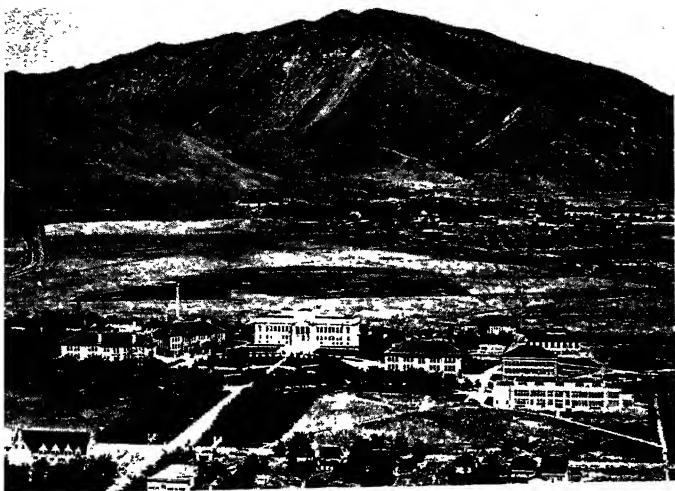
Northwestward from us across the Canyon,

Ensign Peak stands in fine relief, a rounded cone a half mile above the valley. From that eminence Brigham Young, first in vision and later in person, according to the story, saw in this valley a mountain sanctuary for the Latter Day Saints. A spreading monogram, KKK, on the broadside of the elevation, is a suggestion of the many strange bedfellows the Saints have had.

The city below us is embraced from the east by a friendly arm of the Wasatch Range, on the wrist of which we moved elbow-ward. The city whirled in fascinating eddies far below us through the trees along the Boulevard, while the Wasatch Range, lifted into a new perspective ahead of us, like a glorious banner was unfurled to the southward as far as the eye could reach. The beautiful picture-city spreading away from the foot of the slope is undoubtedly a satisfactory fulfillment of Joseph Smith's prophecy, and Brigham Young's vision, of a Rocky Mountain Zion.

The Wasatch Boulevard, on a shelf carved by an ancient shore line of Lake Bonneville, led us through Fort Douglas, whose broad parade grounds, semi-circle of Officers' Quarters, and numerous substantial barracks, are tastefully arranged and well set with shade trees, lawns and gushing fountains, yet bristling actively with uniforms and bayonets. We found the business-like target range facing the mountain farther on.

Just south of the target range is the round-shouldered opening of Emigration Canyon, through which, according to a conspicuous paragraph in history, the pioneer Mormon caravan entered the



Photos: Above, by H. C. Wilson; below, by Harry Shioler

Above: University of Utah, and Fort Douglas, Salt Lake City

Below: Bingham Canyon and Utah Copper Mine

valley in July, 1847. In that party, which was two or three days trundling out of this steep defile, were "143 men, 3 women, 2 children, and 3 colored servants, with 71 wagons, 1 boat, 91 horses, 52 mules, 66 oxen, and 19 cows," according to a bronze tablet on the Brigham Young-Pioneer Monument in Main Street. As we strove to visualize the historic cavalcade nearing the end of its memorable journey, a humming air mail plane in modern contrast passed above us and over the mountains at about a hundred miles an hour.

A shapely concrete monument has been appropriately erected at the point where Brigham Young, sick of mountain fever, rose from the bed in his carriage and first viewed the Salt Lake Valley. Though a vulture circling aloft on that day prefigured the air mail plane, President Young gave his celebrated decision: "This is the place; drive on." Those words are engraved on the Pioneer View Monument, and with them the relief of a buffalo skull, on which the traveling pioneers were wont to write messages for their followers—the bulletin boards of the plains.

Isolated, but conspicuous on the slope across the arroyo to the south is St. Mary's of the Wasatch, a Roman Catholic school for girls.

As we halted at a parking plaza on the eyebrow of Parley's Canyon, another and much greater historic pageant passed in mental review. It was the advance of the Forty-niners in the California Gold Rush, the ceaseless string of emigrants, the galloping Pony-Express, and the wheedling Overland Stage. For twenty years they came

tearing through this Canyon. A little deeper into the Canyon the modern roadway is held in place by massive rock fragments still bearing on their upturned edges the petrified ripple marks of prehistoric Lake Bonneville, and standing just as they were upheaved by the cataclysm which raised up the Wasatch Range.

A few miles to the south we entered the deeply chopped kerf of Big Cottonwood Canyon. In its first few miles the bulging stream hurdles down cascades, through reservoirs, into irrigation and water-supply intakes, over dams and through power plants; while the roadway gallops laboriously up the rocky stairs by the stream. But soon comes the primitive Canyon in its original beauty, save for the improved roadway and the necessary signboard reminders that Salt Lake drinks the water.

The boisterously happy stream seemed continually to be in friendly joust and struggle with the bathing boulders and the caressing birches and willows. Ever also we heard it calling out in passing to the nearer, bolder Canyon walls, whose cheery, echoing responses filled the Canyon with conversation as we advanced. Inviting trails and bridle paths led away at upward angles, through flower-starred parks and quaking aspen pastels, toward the evergreen throws draped from the mountain shoulders; while youthful streams came singing out of the grass-grown ravines as if chanting praises for their mountain abode.

Big Cottonwood Canyon, since the early days of Brigham Young in Utah, has been Salt Lake

City's principal summer home district, terminating only twenty-five miles from the city in Brighton Basin at 8,700 feet elevation, having a serrated rim ten or eleven thousand feet above the sea. It has a delightful spring and autumn climate, only two hours distant from midsummer in Salt Lake, with lakes, streams, forests and parks for good measure. There are scores of rustic summer homes, and ample hotel accommodations, and sojourners assured us it is a kind of paradise for families, and a peaceful week-end retreat for the business man.

Uncle Ferd and Aunt Em, our guests on this trip, were especially pleased with the exhilarating atmosphere and the extraordinary mountain horizon, in contrast with their monotonous Kansas skyline. But after luncheon, in pursuit of a schedule, we loosened the brakes and coasted valleyward again.

Ascending a mile or two from the valley into Little Cottonwood Canyon to the Wasatch ore station, we glimpsed on the left the granite quarry from which the Mormon Temple was taken, and on the right we saw something different in Canyon scenery. The south side of Little Cottonwood Canyon is one of those awesome, cloud-tearing walls which cut off a third of the sky. Its darkened niches are peopled with weird figures in mysterious pantomime; and its bristling projections are dominated by guardian warriors and groups of savage beasts; while the lofty crestline is fitted with furious rock catapults and other imaginary engines of primitive war.

Across the Salt Lake Valley on a pleasant drive, and into a much-excavated, dumped-over, burned-out and generally devastated canyon, we shortly entered the lower end of the shoestring town of Bingham Canyon—one narrow, crooked street in width, seven miles in length, and thronged with a regular population of something more than a thousand people per mile. We pushed our car laboriously through the dense traffic, up the steep grade, and along the exceptionally crooked street, with its traffic dammed back at every projecting building corner. The human faces and the business names we glimpsed were as strange as the city itself, like a visit to a remote borough in a foreign land.

Beyond the "tunnels" of a few towering trestles—passageways roofed over to shield us against falling ore from trains jostling along at dizzy heights above us—the Canyon opens out a little, or rather it has been widened artificially by the surface workings of the famous Utah Copper Company's open cut mine, the largest of the kind in the world. This is virtually a mine turned wrong side out, presenting a terraced wall sixteen hundred feet high and about two miles in length, consisting of a rich, varicolored ore surface.

By the time Uncle Ferd had counted twenty-four busy electric shovels on the twenty broad shelves, we noticed the shovels becoming inactive and the workmen leaving the ledges. "The afternoon round of blasting is about to begin, between labor shifts," said a kindly, pegleg watchman as

he showed us where to stand at the side of the great, livid cauldron, secure from flying lumps of ore but within full view of the entire excavation.

The compressed air drill warning whistles were filling the abyss with weird, monotonous wails, and we waited expectantly, scanning the vast wall for anything that might appear. Suddenly a white plume of smoke shot upward on a distant shelf, and in two or three seconds came the plunge of the atmosphere about us and the crashing sound of the explosion a half mile or more distant. Meanwhile a limited storm of many tons of ore debris had showered earthward, smothering the smoke plume.

Flash—Boom! went another blast in another direction; and before the sound was fully registered in our minds, two or three other explosions on other terraces and at other angles, but within good focus in this tremendous acousticon, bombarded us relentlessly; while the Canyon valley fairly rocked with the earth-moving explosions and echoes, from which Aunt Em and my wife shrank together in deep fear.

"About twice a day for over ten years this blasting has occurred," said the veteran watchman, whose missing leg provoked ready conjecture after such a battle of blasts. "And in that time only 150 acres of the 868 acres in the mountain mine have been stripped; though 'the mountain is being brought to desolation' at the rate of forty thousand tons a day. Each electric shovel handles seven tons of ore at a load, worth at present prices about \$24 per dipperful. About

\$450,000,000 in values, mostly copper, have been recovered to date from this one property," he said; and we could only conjecture how much additional value was passing over the tramways and the spidery railroad tracks from other properties in the district.

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CHAPTER IV

A TASTE OF GREAT SALT LAKE

WESTWARD the course of tourist empire takes its way from Salt Lake City to Great Salt Lake, fifteen miles and thirty minutes distant. I suggested the automobile and Uncle Ferd assented; but my wife and Aunt Em voted for the electric train, making it unanimous for the trolley. We had a good view of the aviation field, crossed the wild fowl sporting ponds, and sped onward over the featureless plain toward a tremulous blue streak of water against the scalloped horizon.

As the Oquirrh headland to the southwest moved closer for a better focus of the smelter towns and creamy smoke plumes, an expanse of blinding white fields swept into the foreground. It was the salt basins, a layer of Great Salt Lake spread out on the plain to dry! The fields were covered with salt, and fenced with low dikes. Some of the areas were flooded with a few inches of water undergoing evaporation. The salt was being plowed preparatory to being harvested in others; and many fields contained immense storage pyramids of salt, from which box cars were being filled by means of wheelbarrows.

The railroad tracks through the salt basins led westward to a bulky manufactory which was puff-

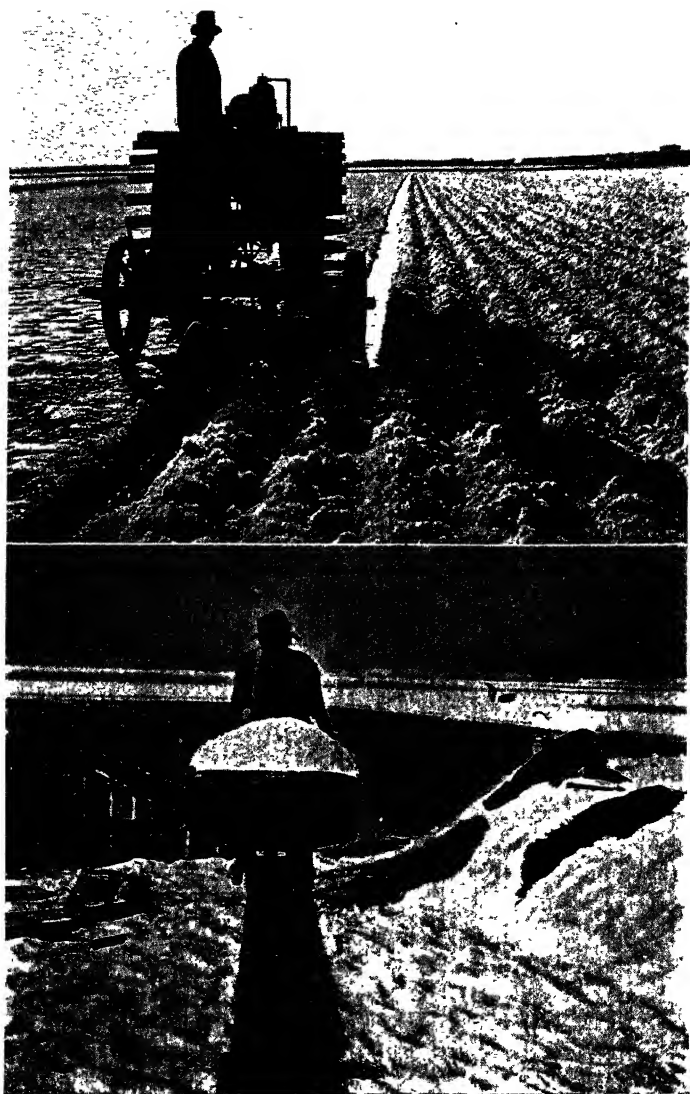
ing salt dust at every pore. As we drew alongside the plant a factory official, before alighting, kindly informed us that the salt taken from the evaporating basins is perfectly pure, as the bittern or residue is drained off before it precipitates its solids. In the manufactory the salt is dried in kilns, ground, assorted, and sifted into commercial sizes. It is then packed for the market in blocks, boxes, bags and bottles, many of which were in evidence on the loading platform.

"With enough salt in the lake, by actual calculation, to fill fifteen strings of boxcars reaching to the moon, rock salt is brought here from the mines of central Utah to furnish variety to the trade," he remarked, pointing to a car of rock salt being unloaded.

We moved onto the lake pier near a centipede trestle which was carrying a flume of salt water from a deep-water pumping station, toward the evaporating ponds which we had passed.

Saltair Beach Pavilion is a fun palace of Spanish-Moorish architecture, standing on some four thousand legs in from three to eight feet of water a quarter of a mile from the lake shore. Here we filed through the turnstiles and made the rounds of the amusement concessions, enjoying the roomy, semi-marine promenade. Within the pavilion the dance floor, said to be one of the largest in the world, commanded the admiration of our guests. But clearly, they had but one objective in their minds, namely, a swim in the lake, with the hundreds of bathers we had seen in the water.

An attendant on the bathing wing of the Pavil-



Harvesting Salt on the Shores of Great Salt Lake

ion assured us that very few visitors to the lake escape the lure of a swim, especially in summer. In fact, he said, Christmas baths and January plunges were not unknown. "Some tourists look not at the calendar nor the thermometer, but take the plunge while they may, to test the peculiar water, lest they not pass this way again," he said as he delivered our bathroom checks. Which reminded me that with icicles pendant from the fresh water cleansing showers and ice mirrors on the changing room floors I personally once joined a visiting friend in a birthday dip on the 22nd of November.

The stairway from the bathers' pier descends into water five feet deep, but Uncle Ferd, tall though he is, could not induce his feet to stay on the sandy bottom. We led Aunt Em and my wife along the guard rope to shallower water. While both guests found a childish delight testing their own specific gravity, bobbing like corks on a fishing line, the more agile and experienced bathers stalked about us treading the water away from the guard ropes like animated hydrometers in a dense electrolyte.

Moderate waves and swells in the heavy brine lifted and shifted us with a super-power. Our feet invariably left the sand when the water came high on our breasts; and in shallower water we saw one plump matron having the time of her life trying vainly to imprint the mellow, oolitic sand by sitting on it in two feet of water.

Chains of prostrate bathers linked together with one person's toes under another's armpits,

with sails made of handkerchiefs and straw hats, floated at random like log rafts astray. Each floater was exposed from insteps, midribs and ears, safely and without effort, except the effort to be calm in rough water or collisions. On higher waves the chains were parted readily; but as lone bathers we all found another exhilaration in being bounced as in a blanket by the excessively buoyant waters.

After escaping from a friendly water scramble, I heard Uncle Ferd give a slight cry of pain from a splash of smarting salt water in an eye. We had cautioned Aunt Em to tuck a handkerchief under her rubber cap for just such an emergency, but she was too far away to assist at the moment. Possibly it was well that both the troubled man's eyes were gripped shut, as I approached; he could not see my smiles at his facial contortions, for I knew the sting was only temporary. Having often sucked a finger fresh in my mouth to cleanse salt water from my own eyes, I called to him to suck a finger for this purpose. Evidently in his distress he heard only the first part of the advice, for immediately in abject obedience and with a childlike faith, he thrust a finger deep into his mouth and sucked it industriously, while his tears washed the salt and pain away!

We understood the beach guards and many others have accustomed their mucous membranes to the salt water, and can dive with ease; but the average visitor finds diving a dangerous baptism, because of violent irritation in the nose and throat passages. However, Uncle Ferd was in no hurry

to leave the water, as this was but an initiation stunt for him; and the women had found a new pleasure in the sunny sand tank.

The lake water has a beady, opalescent aspect of remarkable clarity, and is so soft and soothing on the body we noticed that the novice and the native son alike were prone to acquire a sun tan if not a blistering long before they had had enough. We also discovered that the briny liquor produced a singular exhilaration, being a veritable *elixir vitæ* in its tonic effects, noticeable at once on the appetite. Yet, from many other experiences in the water I have learned that the bath has a lingering soporific effect, usually inducing extraordinarily sound sleep afterward.

According to the beach guard, Great Salt Lake is the remains of Lake Bonneville, a prehistoric fresh water body about the size of Lake Michigan. The shore lines of the ancient lake were cut at many levels, some of which were pointed out on the Oquirrh Mountains above the smelters. On the crest of Antelope Island an extensive deck is leveled off amidships at the loftiest beach line, forming a conspicuous landmark about a thousand feet above the present water level.

"The present lake contains the solids left by its predecessor, and many besides, consisting principally of common salt, but also Glauber's and Epsom salts, lithium, calcium, and potassium sulphates, and sulphur in important quantities," he said. "The amount of solids held in solution remains practically constant, and at the present comparatively deep water stage, after several wet

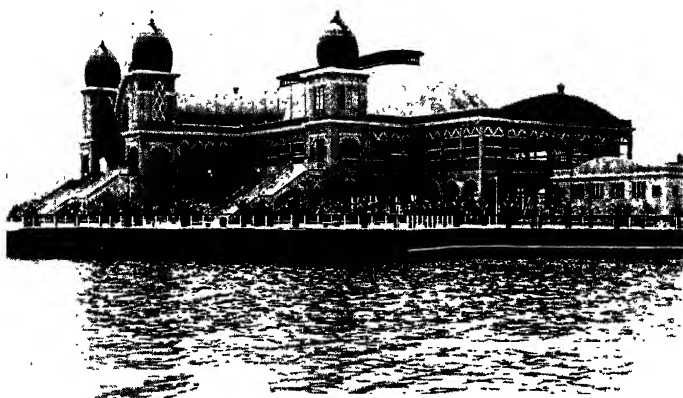
years, the salts are only about seventeen per cent of the total weight, while in 1905, at an extremely low stage, the water was nearly twenty-six per cent solids, being practically saturated," he told us. The water never freezes, though extensive cakes of ice sometimes drift out onto the lake from the estuaries of incoming streams.

The guard also gave the interesting information that the wood piling and other timbers under the resort are "embalmed" in the brine, being immune from attacks of teredos, barnacles, fungi and other destructive agents. None of the timbers show any signs of decay, though some of them have been in use more than forty years. The water, however, is said to be very destructive to nails and other common iron articles, necessitating the extensive use of brass, aluminum and other non-rusting metals on boats and underwater structures.

The genial skipper of a spacious pleasure boat had no difficulty persuading us to enter the craft for an excursion among the islands. His boat was especially built to ride in the heavy water, he told us, as boats intended for ordinary waters are top-heavy and unsafe on the lake.

Departing northward from the Pavilion, we were soon abreast of Antelope Island. Patchy colors of flowers, and greenswards in the rising distance were evidences of an extraordinary landed oasis, with plenty of fresh water, in a sterile desert of salt water.

On the broad slope near the island shore we could see the old Mormon Church ranchstead,



Photos by Albert Wilkes

Saltair Beach Pavilion; and Bathers Floating on Great Salt Lake

now privately owned. Headquarters once for the Church livestock ranching and for emigrants awaiting allocation, the place was temporarily occupied by several thousand people, according to the skipper's story. Today its quaint, thick-walled stone buildings and its extensive heavily fenced corrals are headquarters for a pretentious buffalo ranching enterprise.

A herd of these native western beasts, numbering several hundred, in a perfectly wild state, many of them plainly visible from the deck of our boat, is maintained for sportsmen hankering after the old-time buffalo hunt. Thus the historic resort of Brigham Young has become a new form of Dude Ranch. This island furnished both the rugged scenery and the wild, stampeding buffalo herds for certain scenes in "The Covered Wagon" picture film, we heard the skipper say.

Egg Island is a guano-covered pile of rocks rising out of the water at the northern extremity of Antelope Island, where black cormorants, herons and sea gulls perform their annual nidification. Fremont, a castellated island farther north, is also an isolated but luxuriant livestock ranch, though much smaller than Antelope.

A mound of pebbles on the eastern slope of the island marks the last resting place of a prominent jurist, who went to that natural sanitarium to prolong his days. The skipper told us that on the last night, the jurist's two little daughters dragged driftwood all night long to feed the signal fires, while the mother, alone, saw the fire of life go slowly out.

Bear River Bay, the northeastern arm of the lake, is spanned by about ten miles of the Southern Pacific Company's railroad tracks. The rails are all on a heavy rock fill, save a thousand-foot trestle in the middle, which we could see in the distance. This gives the river and bay an outlet. Since the free interchange of waters has thus been interfered with between the bay and the lake, the bay has freshened greatly, some of it now freezing over in winter. But there is said to be little prospect of its becoming entirely fresh because of wind tides from the lake through the bridge.

Twenty miles of this unique railroad line over the main body of the lake, west of Promontory Point, consists of twelve miles of trestle, standing at present in from thirty to forty feet of water, and eight miles of rock fill. Midlake, a train order station, is a mere knot of buildings near the middle of the trestle. Three operators, some of them with families, with a few trestle and track workmen, have their homes in this strange spot, according to the entertaining captain.

Gunnison Island is a dreary outpost some miles north of the trestle. It is the principal sea fowl rookery in the lake, student ornithologists estimating that about twenty thousand sea gulls migrate from the Pacific coast to this secluded spot for rearing their annual broods of young, we were told. About five thousand gulls build their nests and make their summer homes on Egg, White Rock, and other islands; while Hat Island, often called Bird Island, is the home of about ten thousand gulls, plus the usual percentage of pelicans,

herons, cormorants and a few other salt water species.

The only plant life in the lake water is a patchy mosaic of algæ on parts of the white, sandy bottom, plainly visible at twenty-five to thirty feet depth. In this seaweed a certain larva has its abode, the captain said. The principal inhabitants of the lake water, however, are brine shrimps about a quarter of an inch in length, though neither larvæ nor shrimps are commonly seen. The captain dipped up a few of the pale, ant-sized, many-legged, brine shrimps, and remarked that a shrimp salad of them was a tedious proposition, though not an unsavory one. We were not hungry.

At a change in the course a gust of wind lifted a few straw hats, and the skipper kindly rang for a stop to gather in the headgear. The hats were found to be well pickled in the brine. When they dried out they were white with salt, as stiff as if starched, and as heavy as zinc.

Hat Island, floating on the water like a Colonial cocked hat, is about fifteen miles west of Antelope Island, whither we had set our course.

Silvery white sea gull wings had glinted at us from the sky since we left Salt Lake City. The birds strolled luxuriously and unafraid over the roadside fields; and they filled the sky and the resting spots at Saltair with their fine ivory forms and graceful flights, everywhere doing yeoman scavenger service. So did they storm the air around the boat in friendly solicitations for food, keeping us interesting company all the way. On our approach to the tiny, rocky form of Hat

Island, the older birds on the wing kept aloof. Many thousands of them literally filled the sky, while hundreds of acres of the surrounding water were closely crowded with pelicans and gulls.

Pelican Point, a sand spit at the south end of the island, has an excellent beach where we made a landing. We soon found, however, that the principal "pelican point" is the hammock or knapsack under its lower jaw. The fledglings we captured had been skimming up larvæ, but several deposits of small fish and a carp cadaver a foot long showed unmistakably what the knapsacks of the adult birds were accustomed to carrying from the fresh water streams and lakes.

Another "pelican point" not on the maps was noted when some young men visitors caught a large, fuzzy, immature pelican as large as a lamb, from a flock huddling in the brush, and filled its three-quart pouch with sand. It promptly tumbled over on its nose with the weight, needless to say, but by a deft action spread the base of the jaw to ten inches, readily discharging the load of sand.

Droves of pelicans, nearly grown but unfeathered, waddled and fell very clumsily through the brush and over the rocks on our approach, but made little effort actually to escape or retaliate. The pelicans apparently make up a large percentage of the daytime stay-at-home bird population of the island, though the adult pelicans are continually engaged in bringing food to the island. The old pelicans migrate from the Gulf of Mexico and the isolated Pacific coast nooks, to avail



Photos: Above, by J. E. Stimson; below, by Dr. W. H. Hopkins
Gulls and Young Pelicans, Hat Island, Great Salt Lake

themselves of this nesting sanctuary, according to the skipper's ready lore.

"Mrs. Pelican is entirely too good a fisherfowl to suit Utah sportsmen," said the captain. "Sighting schools of black bass minnows in the smooth shoals of Utah Lake, she skims them up with frightful casualties—173 minnows being found in one old pelican's knapsack."

Thus fish food is often delivered to the island in excess of the fledgling's immediate needs, and the adult sea gull plies its profession as a sanitary engineer and gleans up after the pelicans. For this the gull has been accused of pilfering, we understood; but after noticing the filthiness of Egg Island, where pelicans predominate, without the service of the original "White Wings," we could not lay the charge of purloining against the gull.

Indeed, sportsmen are said to rejoice when the gull goes further and enjoys the special delicacy of a pelican egg or two for luncheon. With one deft jab of its blunt beak the gull opens the pelican egg, according to a bird authority in the party; and then with a wide, tweezer-like clamp of the egg in its beak the savory morsel is lifted and drained into the gull's throat—a remarkable sight, he declared, worth waiting hours to witness. Goodly contingents of pelicans are said to stand continually in solid lines about their precious egg fields as sentinels and fighting guards against the ever egg-hungry gulls.

"The greedy but lovable gulls come out of the western sky as sure harbingers of the Utah spring-

time," said the birdman. "Their tireless and insatiable gleanings for food extend over the agricultural lands as much as sixty or eighty miles from their nesting grounds in the lake. Their provender consists of larvæ, worms, insects, mice, ground squirrels, young rabbits, and carrion, garbage and refuse of all kinds. It is a mean and unattractive service," he declared; "yet it is so splendid, so necessary and so faithfully and assiduously performed, that it is appropriately reflected in the grace, beauty and pearly iridescence of the gull's physical exterior."

Mice once appeared in an eastern Nevada agricultural valley, seriously menacing the grain crop. Like heaven-sent messengers, the gulls from Great Salt Lake reported by fast aviation service, and in a few hours of hilarious gluttony ridded the region of the mice, according to the speaker.

A certain gull's stomach was found by a biologist to contain 340 grasshoppers, probably eaten within a half hour.

In the spring of 1848, ten months after the Mormon pioneers reached the Salt Lake Valley, the interesting narrative was unfolded to us, cricket hordes swept into the meagre grain fields, threatening the annihilation of about nine hundred acres of wheat. With a prospective yield estimated at twenty-seven thousand bushels, the gulls, by consuming the crickets, thus netted the praying pioneers at least a bushel of grain per gull, and averted the starvation of the impoverished Saints. The gulls are said to have rendered

a similar but still greater service to the pioneers in 1849 and 1850.

In appreciation of all this splendid service the State of Utah has placed a value of twenty-five dollars on the head of each gull, in addition to the twenty-five dollars placed by the framers of the national migratory bird law. That is, the wilful destruction of a gull is punishable by a total fine of fifty dollars in Utah, we were pleased to hear.

It is believed gulls live to be twenty-five and possibly fifty years old, though because of their feminine appearance no one would inquire about their age. Seldom are the remains of a dead gull seen, though we were told they are not cannibalistic. Where they go, or what finally becomes of them no one seems satisfactorily to have discovered. But, as a just reward for valiant service to mankind, they could properly pass on to an unnamed existence without the ceremony of death!

Evening was approaching from the far-flung western horizon as we weighed anchor; and we had nearly two ecstatic hours in which to enjoy one of the West's most wonderful evening skies. The beneficent sun apparently gathers mellow tints and flaming colors from every continent, coast and ~~dime~~ ^{time} on its diurnal journey, only to release them all in a single blazing halo as it descends into the desert beyond the Great Salt Lake. The cloud-paneled sky, the mountain silhouettes and the dancing, mirroring foreground seemed to draw forth and filter the tinted treasure

in gorgeous prodigality on this one supreme sunset.

In winter, when there is no one on the lake to see, they say the world's premier sunsets migrate; but when the curtain of fine haze rises quietly and uniformly from the desert hinterland to meet the returning summer sun, the colorations are thereby refined and clarified with wonderful prismatic effects. From the vicinity of Saltair we saw the lofty Stansbury Island and the main Stansbury Mountain Range to be but feeble, futile dams against the flood of gorgeous light which poured forth from the art windows of heaven; while the evening landscape generally was lit up as a modest, subdued minor half of the remarkable scene.

An oddly shaped raft of clouds was conjured up and pushed into the sunset scene apparently for no other purpose than to decorate, and as a result the highlights in the sky were greatly heightened, and the shadows deeply inked and empurpled. Streams of brilliant light sprayed through the cloud-raft apertures as if under pressure, burning the cloud edges into molten gold, and storming the entire western sky with a battle of colors which we hushed our breath to hear. Regal colors blazed out, but blended again and rapidly faded away among the forms of divine creation peopling the scene; while a broad, undulating roadstead of golden radiance danced across the waters in front of the sun, on which we were carried afar into Fancy's Fairyland.



Photo by Albert Wilkes

Sunset, Saltair Beach, Great Salt Lake

CHAPTER V

THE SALT DESERT MIRAGE

THE dread of the Great Salt Lake Desert, beyond Skull Valley in western Utah, was greatly mitigated for me by the companionship, on the journey across it, of Reimer, a road superintendent; in several years' operations on the desert, he had met and conquered nearly all the sinister influences of this cruel wasteland. Moreover, the vast plain of loneliness and death is now crossed by the Lincoln and Victory automobile highways, and the Western Pacific Railway to further guarantee a safe return.

The Salduro potash plant is on the Salt Bed, a four-foot layer of solid salt some six by thirty miles in area in the heart of the desert. As we alighted from the train at the rambling, rust-covered manufactory, on the intensely bright and glistering sea of salt, I saw why Reimer had carefully adjusted his goggles before leaving the Pullman. The glare was positively cruel; and the faces of the watchmen at the plant were as dark as leather from the sunburning.

"Only the intense glare from the sun and the salt prevents this from being a world-famous sporting field," Reimer remarked as I mentioned the golf clubs stacked in the office. "Golf, played

with red balls for visibility, offers only one hazard: distance!" he said.

A broad sheet of dense salt water spread out to the south from the station, to my surprise. "From the winter's rain and snow," said Reimer. "It shifts about considerably in persistent winds, the salt floor is so nearly level; but it creeps back into this slightly lower area on quiet days, and by late summer it has usually disappeared by evaporation."

"Numerous culverts through the road grades consequently have been necessary across this level, drainless plain; and the grade itself was keyed to the actual earth by channeling through the salt and into the mud several feet, and filling this trench with soil to a union with the dry grade; this was to prevent the dissolving of the salt foundation by the somewhat freshened water in unusually wet spring seasons, though the Salt Bed, even when under a saturated solution of salt water, is about as hard as ice," he finished.

While Reimer was looking over some machinery, Conley invited me into a salt rusted automobile for an exhibition race against time on the unroaded Salt Bed speedway. As we turned northward off the highway grade onto the porcelain surface of pure salt just west of Salduro station, Conley slipped the throttle of the car wide open. The car leaped ahead like a deer out of a shipping crate. So perfect is the traction of rubber against water-packed salt that the machine was clocking fifty before we got our breath or bearings. It was like an airplane climb: all noise

and no bumps, but flying forward through space like a duck due in the Canadian Rockies by sunset.

Conley had left the steering wheel entirely to itself and was using both hands to talk with, risky though that bestowal of faith seemed to me to be. After sailing through space with nothing to mark mileage but the lapse of time, he laid hands lightly on the steering wheel and turned the nose of the craft a trifle. Owing to the gripping traction, the vehicle took the curve like a Chicago cable car. Though the salt is not dented, and no visible trail is left behind, I would swear that in an instant the inner wheels had left the salt entirely. Another light touch on the steering wheel in the opposite direction, and the machine took the reverse curve like a stallion running wild. Instantly it was the other set of wheels that left the salt for a spin in mid-air.

"It is nothing," yelled Conley reassuringly, above the roar of the machine; "I have hit forty down yon row of telegraph poles, dodging them first to left and then to right, with a heavy load too; hell of a wind pressure though."

After a brief straightaway run we headed back toward Salduro station across lots—though the salt is without a mark or a figure—still ticking forty-five, fifty, with the trembling speed indicator. It was a supreme thrill in which we were detached from everything but the sound of the motor and the pressure of the wind in the open car.

In a mile or two the saltscape became glassy with water, the Stewart sagged to forty-five, and

we noticed that the engine registered an increased pull. "It is due for a washup, anyway," said Conley as the acid spray began to rise. As the shiny glass surface deepened, the speedometer slowed to forty, and the salt water spray was standing out like long bristles on the front tires. Longer grew the white walrus whiskers in the deeper water, and we were soon plowing the water like a wild speedboat riding on its tail. We finally had to draw up to a ten-mile gait to prevent being deluged by the spray from six inches of water, and the better to take the bridge leading over the ditches and to the Wendover grade again.

In contrast with the speed we made was the snail-like movement of a train of suffering emigrants who went trudging laboriously across this salty, mirage-trimmed waste of mire and despair just eighty years ago. In place of the temporary artificial oasis at Salduro, there was only the shadow of a circling vulture, which was closely observing the emigrant caravan in the mud beyond the Salt Bed, and ominously biding its time.

According to a paragraph in history, the Reed-Donner party approached the salt desert the first week in September, 1846, jubilant in the belief that their greatest grief was over; unsuspectingly they entered what proved to be an abandoned furnace of the inferno; and before they emerged, almost empty handed but for their very lives, they had erected the celebrated sign at the portals, "Abandon Hope, All Ye Who Enter Here," which quite effectively halted and detoured all subsequent emigrant and other traffic until the

coming of the daring and well supported railroad and highway builders in a much more recent day.

"The mocking mirages which confused the Donners, only entertain the traveler of today," said Reimer as we set sail across the sea on an afternoon train for the east. "A wagon box abandoned by the Donner party, several miles north of the railroad, was for many years a landmark in the desert maze of mirages," according to his narrative. "It was usually visible, though of varying heights and shapes. Its true identity unknown to most observers, it was for many years called the Mystic Homesteader's Cabin; until the wagon box finally collapsed in the weather, and the homesteader in the mirage presumably gave up his claim."

In the commonest form of the mirage we noticed a counterpart of all visible objects somewhat below and separated from the objects, after the manner of a mirrored image; thus the illusion argued for the presence of a water surface in which such an image could rationally be reflected, giving an impression of a lake. Ridges and low hills were transformed into islands of sharp outline and excellent form, riding somewhat unsteadily like ships in a sea that has no wave foreground. A large body of water appeared to break through a low pass and spread out toward us, due, according to Reimer, to the submergence of a saddle in the ridge, below the level of the superheated surface atmosphere.

A distant mountain range of much greater outline appeared unaffected by the illusion from our

viewpoint, but at the same time intervening ridges, hills and other lesser figures were lifted from their contact with the earth by the mirage; and being projected in the line of sight against the more distant range as we advanced, the miraged elevations seemed to move like phantom vessels actually sailing along in front of the more distant mountains.

Reimer pointed out the ancient Lake Bonneville shore lines clearly cut on the low mountains at the southwestern border of the desert. These shelves seem to be at approximately the same levels as the bases of many of the floating "islands," so that it was easy to imagine the unmoored craft had been wind-driven so persistently into that quarter as to have worn away those shore lines.

From the observation platform as we got under headway, Salduro was seen imaged afloat somewhat above and detached from the place where the horizon ought to be; and it was very interesting to observe live smoke issuing from the phantom manufactory thus pasted against the sky.

Individual clumps of greasewood tall enough to cast a shadow, and thus to have a darkened side, became, when distorted by the mirage, elongated vertically like barrels, pillars or posts, and they appeared as a series or string of objects to our fascination; but as we continued to advance, leaving them more directly at right angles to the line of travel, the string of bobbing objects in the waveless sea were rapidly absorbed in space like a string of yesterdays.

Bushes, tussocks and hummocks of irregular form, especially of varying darkness and height, readily took the form of animals and fowls. Thus there appeared in the shore waters of the ethereal seacoast water a flock of flapping, stretching pelicans or geese with silvery bosoms and darkened backs. Strange to say, the eye and the mind seemed to place the fowls at a definite distance, not the real location by any means; and as we advanced, the birds were transported in a group with surprising speed, due to faulty perspective. We might have thought at last that they had flown, had we not watched continually and seen them scoot or fade into invisibility one by one.

"Much of the resourcefulness and enchantment of the mirage, however, must repose in the mind of the beholder; there only, does it become a reality," according to the experienced skipper, Reimer, on this strange sea of a stranger craft. "Otherwise the salt workman could not have looked into the northwest at a fine mirage of the desert islands and shore lines, and been convinced that he was witnessing a projected sky photograph on a grand scale of the Columbia River in Oregon, or the sojourning lady could not in full confidence have conjured up in a disjointed mirage image the business blocks of her beloved San Francisco. These pictures were as real to the beholders as memory could make them," he declared.

"The prospector-haze gazer must be permitted his cherished illusion that he sees his home village mirrored on the horizon of the future, and set with stately skyscrapers," pleaded Reimer for this

quaint lore. "Even the sheepherder must not be deprived of the splendid hallucination that he saw a Southern Pacific train as big as life, and quite as active, making the stops at Tecoma and Montello, Nevada, though it was sixty miles distant over the high Toana Range of mountains, for a time card confirmed the evidence of his eyes! Likewise the lone widow, residing on the edge of the desert, whose young soldier husband did not return, must not be disillusioned from seeing a common bitterbush lifted on the swelling bosom of the mirage into a figure of life, for in it she regularly salutes in fancy the cloaked form of her departed companion!"

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Timpanogos Mountain, Utah

Photo by Albert Wilkes

CHAPTER VI

THE TIMPANOGOS MOUNTAIN TOUR

I WISH we could get into the mountains again, into another rock-hung canyon or onto a far-seeing crest, before we return to the prairies," Uncle Ferd voiced a common desire as he gazed wistfully at Salt Lake's elevated horizon. "He means without the hard work of climbing there," Aunt Em explained. And that is why I had said: "Timpanogos," as one might pronounce a charm or good luck word, and assisted the visitors into the automobile.

Thirty-five miles south of Salt Lake City on "The Broadway of Scenic America," the spreading form of Utah Lake forces the paving to the eastward through a forest of orchards and a chain of towns. Just beyond Lehi City our gaze ahead was lifted as with a magnet to Timpanogos Mountain, the Atlas of the Wasatch Range supporting the Utah sky. Its massive, glacier-ribbed and rock-crowned form rises almost sheer in an eight-mile front wall from Utah Lake at 4,500 feet above the sea, to a sawtooth summit a mile in length cleaving the sky at 12,000 feet elevation.

We remembered that from the surface of the lake and its farther shore the Timpanogos crest-line presents a perfect profile of the face and figure of a prostrate woman, who occupies an

equally conspicuous place in the legends of Timpanogos. But we were too close to discern the fabled figure in its entirety.

In Provo Canyon where the sweeping wings of the canyon are lifted highest, Bridal Veil Falls descends from a dizzy height in a misty veil of several folds.

Provo Canyon's rocky trough soon flattens out in Heber Valley and at the village of Midway we drew up in a senile geyserland, a Yellowstone of Yesterday, called, locally, the "Hot Pots" for short. In answer to our inquiry, a resident informed us that the Heber City High School and Amusement Hall, the Midway Latter Day Saints meeting house and dozens of residences were made of the so-called "pot-rock" or limestone taken from the geyserite formation just beneath the soil of the region. While moist and fresh in its natural place, he explained, the pot-rock is soft and the quarrying is often done with common axes; but on exposure it becomes very tough, impervious to moisture and insulates effectually against extremes of cold and heat.

We halted our automobile on the roadway within a few yards of a half dozen splendid pots, and within a few rods of eighteen or twenty quaint hot spring formations, intimate reminders of a gala day gone by. Tea cups, mush bowls, gravy boats, wasp's nests, crawfish chimneys, and other hollow forms lift their cement-like, inflaring rims above the general surface. Most of them contain active hot water, the water level being dependent on the location of the drainage fissure.

Cold water irrigation streams flow across the district simulating, in this additional respect, the Yellowstone, where hot and cold streams flow side by side.

The largest spring and the largest pot are being exploited as Snyder's Bathing Resort. The bowl of Snyder's pot is about sixty feet high and a hundred and twenty feet across the level top, probably solid pot-rock. Ascending the stairway chopped in the side, we found it has a jagged well or hole in the middle of the top about twenty feet in width and of unknown depth. This greatest of all sinter mounds is five or six hundred feet in diameter at the base. According to the proprietor, the pool overflowed at the top until it was tapped by a pipeline to supply the indoor bathing pool nearby. Aunt Em and my wife were keenly interested in a chicken brooder house built into a hot-spring crater.

While we were looking out over this going, but not quite gone, geyserland, a string of vents a mile away sent up a series of plumes, which we took to be steam from spurting springs or geyserlets. But when in a few seconds the report of explosions reached us, Crook remarked that the Sugar Company was blasting and removing the pot-rock formation for use in sugar refining.

On Sugar Rock Hill we found twenty or more nipples or cones all dead and dry. A typical cone of solid limestone sinter is about twenty feet wide at the base and ten feet high, shaped like a chocolate drop, and colored almost as brown by moss and lichens. A tiny vent appears in the top from

which water obviously flowed during the ages in which the cone was being builded. Still another form, one hundred and fifty feet wide at the base and twenty-five feet high, is similarly sealed like a sepulchre, showing no sign of life.

Down at Luke's Hot Pots, they showed us how farmer Luke is combining the resort business with agriculture by exploiting two bathing pools and raising pigs and tomatoes in other bowls that have gone dry. The pigs come out on a gang plank when ready for market; and the tomatoes we saw were making a phenomenal spring growth due to the soil and warmth of the pot interior. An earthquake temblor, some fifty years ago, produced an internal leak on one of Luke's pots, but a more recent tremor raised the water level four feet.

A six-inch crust of limestone formed in Luke's bathing pool in eight years; and slabs from six to eight inches thick are exhibited which formed in seven years in favorable positions. A horse hitched in front of the resort, presumably stamping flies, broke through the two-foot pot-rock crust to an unsuspected body of hot water. The horse was saved but the accident was a grim reminder that a very thin partition separates today from yesterday in some of this ancient geyserland.

As through the Hot Pots we peered into the past, so from Timpanogos' ever-visible top, when we gained it, we seemed to be gazing far ahead into the future! We were suitably dedicated and set apart for this latter experience the evening before in the mystic Theatre of the Pines at Aspen

Grove. Here the Brigham Young University summer school gave its annual Timpanogos hike program and bonfire, with much exquisite pageantry and beautiful pantomime of an appropriate character. Afterward, in the night, from eleven to three, the rejoicing hikers by hundreds trudged past our encampment on the up-trail. They were making the climb by moonlight to greet the sunrise from the summit.

But we found still other hundreds to accompany us in the morning; and before the top was reached we overtook a few night hikers who needed the extra time. Mrs. Alter and Aunt Em decided to rusticate in Aspen Grove, while Uncle Ferd, the boys Irving and Marvin, and I joined the chain of merry mountaineers. The zigzagging, stepping and looping trail, laid out by an engineer, leaps upward across the precipitous face of the festooned mountain as through some Hanging Gardens of Babylon.

Over the innumerable ledges Timpanogos Creek descends in more than a hundred waterfalls. At least fifty of these silvery links in the endless water chain are from ten to fifty feet in height; and most of them are always visible from a mile or two of the wonderful trail.

The trail conducted us accommodatingly close to nearly all the larger waterfalls, and a branch trail invited us aside to linger at Hidden Lake, on a mountain shelf, only a few rods distant. Farther up the trail hesitates, and then divides at Emerald Lake, the headwater of the stream and the catch-basin for the perpetual glacier.

The ledge of the waterfalls is exceptionally lofty and picturesque, a magnificent mountain of itself. But we found Emerald Lake, on top, balanced on a broad shoulder, where still another enormous mountain rises skyward from the main mass of the mountain on which we were standing. It is like the Tower of Babel, reaching for the sky by section upon section, each successive one invisible from below!

We were above the timber line, above the vegetation line, and above the soil line in a realm of upstanding rocks and of valleys of mid-July snow. It might be a bleak and fearsome arctic region, indeed, but for the splendid trail downward and for the thousand or more happy hikers, trudging, resting and cheering each other along the way. The largest glacier is in a hanging valley, a snowy apron, a mile in length and a half mile in width, caught between lofty, perpendicular walls which were scraping the very bellies of the summer clouds above us.

This vast field of creeping snow was dotted with hikers, ascending laboriously in swaying columns, and descending by swift toboggan in sprays of flying snow. Reserving the glacier for the descent we selected the more horizontal route around the principal peak to the north. Heading the American Fork cirque, on a narrow, snow-covered, talus-filled shelf, at a dizzy height above the bow of the cirque, yet infinitely distant below the glowering hulk of Timpanogos' wall, we shortly joined the trails from Camp Altamont and Mutual Dell; and in an easy half mile we were

at the mountain's crest line, at a low saddle, in the long, jagged upper edge.

Here the Utah valley to the west bursts into view in its entirety. It is an appalling sight, a thrilling adventure, for there is no foreground, the mountain is that steep; and the vast map of the valley is a mile and a half below us. I felt Uncle Ferd's hand on my shoulder and heard his voice in my ear: "It is not the altitude so much as the view that startles, and affects the heart." But he was not hurt, nor suffering, only drinking gulpingly of the wonderful scene.

The trail leading on to the highest point, another mile to the southward and another five hundred feet aloft, is engraved safely in the rigid rock, and each turn or rise brought an impressive and awesome experience. At the top the galloping mountain horizon, for hundreds of miles, droops into insignificance under the majesty of this supreme eminence.

Below us to the west the towns of Lehi, American Fork, Pleasant Grove, Orem and Provo are dense patches in the brilliant open mosaic of orchards and farms. Utah Lake, ten by twenty miles in size, is seen in its entirety, so lofty is our viewpoint; and the positions of a half dozen towns toward the south are clearly indicated in the distant view.

On the other side of the knife-edge crest, when we stretched our necks over the eastern eaves toward the glacier to see why a dropping rock sent back no sound, Uncle Ferd shrank back and surveyed the scene intently as if expecting an

active demonstration, or attack, from it. He had scaled the highest pinnacle of his desires, and I could see he was beginning to need more room.

The moving specks on the glacier were barely visible; and we inspected our oilcloth squares in anticipation of the toboggan; the squares were our tickets for a first class passage of the glacier. We observed that the glacier surrenders its moisture to Emerald Lake, thence to Timpanogos Creek and its waterfalls, thence to Provo River, and thence by irrigation streams to the farms in the valley below us, all in one single, sweeping panorama. Flat-bottomed clouds were forming over Utah Lake, and ere we left, the glacier was being sprinkled from these moving clouds, completing the magic meteorological cycle.

A familiar hum in the air focussed attention on a passing air mail plane as we were leaving. It was flying well above all ordinary land elevations, on the journey to southern California; but we were looking down upon the tops of its outspread wings.

Timpanogos, "Rock Mountain," was both feared and revered in authentic Indian lore, according to the legend picked up at Aspen Grove. Uinta Indians battled with the Piutes for supremacy in the Timpanogos region, but were overwhelmed. The beautiful daughter of the Uinta chieftain escaped, and was hotly pursued by the cruel Piutes.

At the head of the Bridal Veil Falls she realized the futility of farther flight. Choosing death rather than capture, she cast herself over the falls, "while

angels hid their eyes and wept," according to the Timpanogos brochure of the Brigham Young University. Thus to this day, after a drenching shower of rain, colorings from the reddish soils aloft tinge the falls as an evidence of their gory past.

Timpanogos, the Mountain God, thereupon became angry with the Piutes and demanded the principal daughter of the tribe as a sacrifice. Leaving her people, she trod the hard trail alone through the canyons and aspen groves and thence by way of the glacier to the windy, dizzy summit. There, perched on the topmost ledge, she prepared to hurl herself below in sacrifice to Timpanogos, when a handsome pursuer called her, whom she mistook for the God of Timpanogos.

Carrying out the deception, the youth gallantly led her northward and downward to a crystal cave in the side of a beautiful canyon. It had been the home of the bears, but with all its crystal and mirror forms she readily believed her companion to be supernatural and this his extraordinary home. But came a day when a bear wounded her lord and she realized the cruel fact that he was only mortal.

Returning from the hunt one day he missed the maiden. Surmising her destination and motive, he fled swiftly on her trail towards the mountain crest. On reaching Emerald Lake he espied the girl flinging herself from the lofty pinnacle into the lap of Timpanogos glacier. Lifeless, her crumpled body came tumbling down at his feet. Gathering her in his arms, he carried the precious burden back to the crystal cavern, where,

heartbroken, he expired over the form of his sweetheart. Then it was, godlike, Timpanogos clasped the two young hearts into one and placed it beside a mirroring pool in the cave, where it hangs today, the great Heart of Timpanogos. The maiden's form, exalted above all other earthly creations, was lifted to the mountain's crest, as on a heaven-borne bier, to remain, while the mountain endures, as the Sleeping Woman of Timpanogos.

As we passed over the Timpanogos Loop highway into the head of American Fork Canyon the scenic heart of the Timpanogos region was revealed to us as a block of the Swiss Alps which in the generosity of Nature has been spared to Utah for variety's sake.

American Fork Canyon was world famous as a scenic resort fifty years ago, rivaling the Yo-Semite (as they said it and spelled it then), when a branch railroad exploited it; and to our delight the canyon still lifts its rugged sky-supporting shoulders in their original grandeur, and presents the beauty of its rugged walls to the returning tourists.

Charles Kingsley, world traveler, wrote of it. Then came Thomas Moran, whose paintings have helped to make famous the Grand Canyon of Arizona, who reproduced on canvas a few American Fork Canyon views which he considered some of the choicest in the West. But these men knew only the surface, having never heard of the exquisite jewel box in the south wall.

The tickets which we purchased at the Tim-



Photos: Left and lower right by Albert Wilkes
American Fork Canyon, Utah. Above: The Utah Hot Pots. Below: The Heart of Timpanogos (Cave)

panogos Cave superintendent's office informed us that "Timpanogos Cave is operated (under permit from the Wasatch National Forest) by the Timpanogos Outdoor Committee. All receipts are devoted to maintaining and developing the cave for the benefit of the public. Length of trail—one mile; elevation of cave above road—1,200 feet."

We might have been inclined to double the elevation and the length of the trail with its forty-odd zigzag laps, but for the seats at opportune intervals, each with a different prospect of the canyon. Utah valley, seen far to the westward through the tall V in the end of the canyon, smiles wider and brighter with its expanding checker-board from each successive hinge in the trail, and the immensity of the canyon walls round about is majestically impressive.

The trail finally ends at a closed mine door, fitting exactly into the niche through which crept the Indian maiden, her lover, and the bear. Around the door was hung an assortment of tourists' headgear. They take off their hats for the same reason hats are removed in the famous crystalline East Room of the White House in Washington. We signed the register, uncovered, and lined up in the tow of a talkative guide. He carried neither smoking torch nor hand flash lamp, for a house-lighting expert has properly placed the spots, clusters, reflectors, indirects, glows, and the full prism list of colors to set off the cave features; and the guide needs only to remember the location of the electric switches.

The inner vestibule resembles an immense

papillæ-covered throat, frosted over and congealed. Many of the more beautifully figured channels and corridors have been restricted by protecting railings and signs. The features everywhere are set out to fine advantage by the electric lights. The air is good and ventilation perfect, probably from untraced vents to the outside. Here and there are tiny fairy pools or mirrors of water, and most surfaces are moist, though there is no stream or flowing water. The slow dripping from the myriad of stalactitic heads is evidence of the present activity of the beauty-building processes.

Nearly the entire interior cave surface is thinly thatched with a macaroni-like filigree, or what appears to be a mass of vermicelli plastered to the walls in pink, white, and translucent crystal forms. While gazing up a satisfactory reproduction of the famous Golden Stairs set with glass cauliflowers as newel posts, and sparkling with scenery illuminated by the electrical lighting, the guide jarred us back to terra firma, actually, by reminding us of the muddy, slippery stairs ahead due to a drip. Sugar-candy-like forms made the Golden Stairs to the gallery appear to be a kiddy heaven, sure enough.

Frosty feather boas, and neatly braided wreaths trimmed the walls and corners in places as if to suggest that the departing stairs led to a warmer region where such apparel was not needed. Fine coral forms betokened the purity and perfection of the designs. Here and there the veneer of beauty has fallen away, by its own weight per-

haps, revealing mother earth's bare breast of rugged rock. Handholds of ivory and glass indicate the route here and there, though warning signs contradict with "hands off."

"Fat Man's Misery," a feature common to nearly all trails, was on the guide's repertoire, while the "Back Scratching Channel," "Nut Cracker Stairs," "Jelly Hill," "Santa Claus Chimney," "The Dragon's Throat," "Heaven's Ceiling," "Hidden Lake" and "Psyche's Mirror" were also on the route. Among the odd but readily recognized shapes are the mourning doves, the dove's nest, the gargoyles, lace curtains, the chocolate fountain, the spilled caramel, bologna "hot dogs," the giant comb, the dressed chicken, Gulliver's candlesticks, and the elephants' parade.

True to the Indian legend, there is the bridal chamber without the bride, the Maiden's Hope Chest, the Bride's Jewel Box, and the Bride's Bouquet; yes, and a miniature of the Sleeping Woman of Timpanogos, where the body was left by the Indian lover. But most striking of all, most perfect of features, and largest of all single forms, is the great three-foot Heart of Timpanogos, translucent, crystalline, dripping a reddish ooze, the coalesced organs of the romantic Indian couple!

The story of the birth, growth, maturity and decay of the floor of stalagmites and their ceiling companions, the stalactites, is told to the visitor in their own pantomime as by word of mouth or on the printed page. A tiny tongue grows from the ceiling, as many others are now starting, the drippings from which erect a counterpart on the

floor plumb beneath. If the distance be but a foot or two, as it is in many places, these tiny swains of Nature reach out for but a comparatively few years before finally clasping hands.

Some, however, have many feet to go and perhaps many centuries to wait before the union or marriage occurs. This wedding of stalactites to stalagmites is an interesting process, with many an arresting story suggested. Here stands a long, fat, forlorn stalagmite, bachelor-like, whose ceiling mate has been carried away! There is a low stump of a stalagmite, with a broad glossy dome. It is alive, fed by a slender stalactite sheltered in a ceiling crevice; but the stalagmite is in a wind passage and the drippings do not hit squarely or build rapidly. The sturdy post-like fellow is reaching hard for its mate, which accommodately has already extended much more than its share of the distance to the wedding place.

Always, the stalagmite-stalactite couples are glossy and silver-tipped with moisture, while their affection for each other lives. Normal sized imitations of carrots and radishes of opal and glass have apparently frittered away their substance, like so many flirts, on the absorbent sands beneath, and have no wooing episode or companion to show for their otherwise beautiful lives. Yonder is a pair of blackened, tarnished rhinoceros horns in the cave debris, pioneers in the collection of figures, and there again in the darkened drying ceiling is a series of great mammal teats uselessly awaiting the return of the famished beast of the mountain, now grown up and gone.

Stalactitic couples long married appear as important looking pillars in the cave, resting hard at the base and pushing hard at the top. Some, we noticed, were almost touching tips, their lips moistened as if almost at the kissing stage and an early union was indicated, but we couldn't wait. Of the newlyweds, there were the wasplike waists of recent formation, and the fat and forty belts of the long-united, hard-working couples.

It was at the Cluster of Youth, near the Fountain of Youth, where a dozen or more formation couples, in varying stages of stalactitic wooings, were gathered, that I saw the chivalrous Uncle Ferd lean over to his doting better half and affectionately point out a pair of cave forms whose lips had just begun to touch; the joint was still shiny and moist. But for fear of intruding by merely looking on, I slid down the cave replica of Timpanogos Glacier and was soon outside reaching for my hat.

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CHAPTER VII

ENTERING YELLOWSTONE PARK

WEST YELLOWSTONE is a street-wide gash in a dense, purple-hued forest at the sunrise end of the branch railroad. The town hibernates with the bears in winter, taking in addition a good sleep every night in summer. But every morning in the tourist season it awakens promptly at the sound of the locomotive whistle, raises the blinds, tidies up the dining-room, and gets out on the front porch with a gong or megaphone to call the Yellowstone trippers to breakfast. Here at the outset is a whiff of the crisp, bracing atmosphere of vacation land.

The motley patch of handbags at the end of the platform had yielded several pairs of khaki, skin-tight garments with dainty rows of buttons and shapely feminine tapers. At the station a few cover-all dusters had been rented, relics of the stage-coach days. But most of us dressed as we would to business or to shop, for neither the dusters nor the frog-skins are necessary except to conceal or to expose as may be desired by the individual.

After running the gantlet of ticket punchers, to make sure we had a ride round the park circle, we were startled by the shrill, stuttering chirrup of the great yellow oriole transportation automo-

biles, which were then lining up at the back platform. These mammoth, gaily painted ferryboats on pudgy rubber wheels were filled by calling passengers' names, in less time than it took to strap the baggage under the leather tail apron. At the Ranger Station, a few rods distant, the machines halted before a rope stretched across the end of the street, while the Ranger counted noses and distributed his leaflets and best wishes.

When the rope dropped we had three glorious miles through Christmas Tree Park. Then the tunnel of lodge pole pines splits off at the left and in its stead comes the Madison River fluttering at the roadside like a liquid ribbon on the ground. At Madison Junction, where the grass-bordered Gibbon and Firehole Rivers unite and give birth to the Madison, we saw between the streams the tree-covered hillock ennobled by the name National Park Mountain. Here the Washburn Expedition encamped just fifty-six years ago, and its members suggested the setting apart of the Yellowstone region as a national park.

Then the seats caught us in the back again as we sailed southward up the Firehole. While the belt of oiled gravel flew beneath the car, vistas of the sky, the forest and the cascades of the Firehole were flung about us like beads of bubbles on a hell-diver's neck. The rules of the park allow the sagebrusher's Ford the same road courtesies as the yellow screamers, but when these flying palaces fail to make the common touring vehicle look like a bent dollar the Yellowstone trip will

cease to thrill and the geysers will swallow instead of squirt.

"We've got to observe the schedule," I heard from the driver's corner, "so we will stop at the Fountain for a nice rest." The radiators of a few common cars that had tried to emulate the yellow boys were nervously competing with the geysers, but our rangy park "coyotes" were cool and calm.

In an irregular inclosure, at the left, about the size of a hog pen, and having a similar aspect, is a magnificent mudhole, its mud a thickish loblolly of fine consistency. It had been rooted into a high ridge around the fence, though there were no hogs in sight, and the sign read, "Keep Out of the Paint Pots." Here is where the paint makers discovered the process of mixing pigments by injecting steam at the bottom of the vat and letting the bubbles roll up through the mass to mix it automatically like boiling mush. There is a pinkish tint to the whitish mass, hence it has been called "Paint."

The shut-eyed, broad-sided Fountain Hotel stands silent and closed a few rods away, apparently expiring as a result of the camp kits slung on the running boards of the endless stream of private cars on the road. It is rather saddening, in a way, for a chapter in the park's history is written about this hostelry, and I did not feel that we were fully entitled to the truly splendid play of the good old Fountain Geyser in front of the dormant hotel.

But the Fountain was spouting skyward at intervals when John Colter discovered this so-called "hell" in 1807, and it will probably outlive other

hostelries; and when our hundred grateful admirers of its timely display are with the mists of the dawn, the Fountain will doubtless continue to breathe its sparkling breath into the air for the delight of any who may chance to pass. We watched several little buttonhole geysers goof or geyse or whatever it is they do when they do not really spout in earnest; but finally returned to the great yellow wings and were off to the delightful chirrup of the oriole's exhaust whistle.

Lower Geyser Basin is a denuded patch several square miles in extent, on the great Yellowstone blanket of lodge pole pines. It contains many hundred hot springs, some geysers, and a few bubbling mud pots, the chief of which are at Fountain. But it is a pleasant change to look away from the barren areas into the soothing vistas of the forest along the road. It is five pretty miles to the steaming field formerly known as Hell's Half Acre, for no special reason other than that the field is usually veiled in immense masses of steam.

Here is Excelsior Geyser, a far greater sorrow than the mere passing of a hotel. It is the greatest geyser ever known to play in the park, but it has been silent since 1888. Peering through the wind-wafted clouds of steam, into an immense crater twenty feet in depth and three hundred feet across, alive with sputtering steam and water vents, we recognized the sepulchre of the park's greatest gusher, which blew out and perished after an explosion that moved rocks like a volcano.

But its faithful satellites, Prismatic Lake and Turquoise Spring, are still very much alive, though silent, filled with colors of wonderful kaleidoscopic beauty. Prismatic Lake is the largest of the park's pools, a veritable lake of hot water many rods across, and as deep as the eye can see in color-land.

The yellow warblers were parked in a line at Biscuit Basin, and we rounded the pathway to the pools and springs across the Firehole River on our return. It was nearing noon but the biscuits, certainly well cooked, but olive greened instead of browned, were inedible. They appeared in ample quantities, however, just above the simmering surface of the waters in which they have cooked for centuries.

Another brief spin, and the car was halted where a short side road in the primitive brush kinks itself around a perfectly quiet pool twenty-five feet in diameter. A crusted periphery holds the water surface an inch or two above the level of the ground, and a tiny notch in the side of the rim lets a little stream trickle out.

Maybe I am not a safe judge of things beautiful, especially when rich colorings are involved, but I had to look twice, the second time standing, to gasp my exclamation with sufficient eloquence. It is thirty feet deep to a neck at the bottom, a perfect funnel, full to the brim; but to the observer its dimensions are infinite, for the colors and halations veil the features of the sides and bottom except at certain angles.

No flower ever grew with more delicate and



Photos by Harry Shupler

Upper Geyser Basin; and Riverside Geyser, Yellowstone National Park

way into the Firehole River, a deep, round-shouldered, naked streamway that courses through the middle of the "scar" for a couple of miles.

The Grotto, a grotesque crater built up of geyserite, or siliceous sinter, to a height of five or six feet, pushes the roadway into the pines for a few rods; then we came to the Castle crater whose whole structure, twenty feet in height and width, suggests an early day cliff dwelling constructed of cement. The driver mentioned Castle Well, and we raced down the slope into Old Faithful village, where every utility, every sign post, and every tradition, figuratively removes its hat in taking its name, to a broad, flattened dome of glistening sinter and sparkling water toward which all buildings face and all paths lead, Old Faithful Geyser crater.

At the platform we discharged ourselves and lined up at the registering counter. While we waited to have the tickets punched again, the running, pouring, sch-wooshing of Old Faithful across the avenue outside filled us with keen anticipation.

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CHAPTER VIII

TOURING GEYSERLAND

A CRUDE clock dial on the veranda of Yellowstone's Old Faithful tourist headquarters bears this significant legend: "Old Faithful will play at —," the time hands being reset appropriately by the geyser tour Rangers. As the time indicated draws near, the general region yields up its populace like a farming community at circus time. Only the surfeited public utility helpers and the painfully busy visitors fail to respond every sixty-five minutes, while within a mile radius, to this brief but sincere devotional at the world's beloved Old Faithful Geyser shrine, the very heart of the Yellowstone.

Rapidly, like blackbirds on a fence, the tourist lines fill up the veranda edge, and thence runs the overflow to the bleacher benches here and there beyond the limits of the geyser's drainage cone, and to vantage points on the surrounding knolls, in the shade of the nearer trees; and finally segments of a standing circle begin to fill, if the crowds be large. Photographers select their sites with care, emboldened novices push to the periphery of the glistening corrugated cone, while there is a constant shifting of the visitors for better positions, all gazing steadfastly centerward on the collar at the tip of the cone, which is perfectly quiet,

displaying only a few thin folds of gauzy steam.

A sudden gurgling splash of hot water in the esophagus of the geyser's throat sends a spray of silvery beads into the air and a thrill of interest into every observer. After a few tense seconds, Old Faithful begins to churn and splash, the tongues of boiling water licking out in various directions. Then come a few squirting sprays which reach a few yards higher. Tighter grows the tension and more respectful grow the on-lookers as this faithful entertainer gasps and heaves and gurgles through a series of three or four spasms, each one coming a little stronger, and then, suddenly, oh, my!

Yonder into the vertical depths of the blue sky rockets the stormy spray of water beads, rendered especially delicate and beautiful by their heat and in contrast with the closely following column of steam under pressure. Two or three times a column of water is thrust upward, ending in a dissipating spray as high as the cornices of a twelve-story building, but each time falling a little short of the previous height and always followed by a plunge of all-enveloping steam.

After two or three exceptionally brief minutes, the water column is engulfed in an increasing volume of steam, which, now unweighted by a head of water, mushrooms upward twice the height of a city skyscraper, and spreads out under the gentle molding of the breeze into a plastic plume of thrilling and inspiring beauty. If one has selected a position a few hundred feet distant on the shady side of the magic white bouquet in

which the geyser genie has suddenly come forth, with the wind somewhat at right angles to the view, the enchantment is complete.

As the genie's steamy shroud thins and weakens, the ripple of running water from the cone attracts attention. The steam spreads with the water in waves over the sinter terrace, and thence into rivulets, before which the front ranks of the observers who have not already been warned back by flying bits of water or steam are forced backward onto higher ground to escape a hot foot-bath with their boots on.

With the waning of the flood the crowd closes in for a look at the hot and rapidly drying crater. On the way up the ten-foot rise in a sixty-foot slope many feet are wetted by missing the high rims of the shelves, for the treads of the terraces hold water. Near the top the pearly edges of these coral terraces and pools in the formation are so delicate as to seem to forbid desecration by shoe leather, though the formation is quite strong enough to hold.

The crater proper is a pulsating, breathing, living thing, under the livid whiffs of moistening and quickly drying steam. Lobes, folds and pillow-like forms of odd shape and fascinating texture have been built up by the sinter deposits of centuries, and stained by the algæ which abound in waters of these temperatures, into one of the rarest of Nature's oddities. Roughened over the entire surface like a nutmeg grater or a closely grown cauliflower, the effect is somewhat like frost filigree, or the surface of fine coral. But the cav-

ernous, voiceless, oddly shaped throat is empty so far as the eye can penetrate, save for the puffs of steam from the moisture evaporated from the hot walls.

This geyser tube extends downward, according to the geologist, to the molten lava region within the earth, which is rather near the surface here. Water from rains and melting snows, percolating downward through subterranean channels, flows into the geyser tube. This column of water is quickly converted into steam at the bottom, while the weight of the water column greatly compresses this steam. With the continued inflow of water, the column increases in length and weight, thereby increasing the temperature of the boiling point below and the pressure of the confined steam.

Counterbalancing the steam pressure is the sensitively poised column of heated water above, which backs into every accessible lateral crevice and aperture, within and around the main vent. The hotter the water becomes, the nearer to the top the steam bubbles will rise before bursting, hence the splashes, pops and preliminary spurts noted just before the geyser plays. Openings nearby become filled and may often serve as indicators that the parent geyser is about to play.

Finally the crux is reached, a goodly quantity of water is spilled out at the top, and the equilibrium of pressure is destroyed by the loss of weight, in favor of the steam pressure from below. Instantly the internal steam boiler explodes, the discharge being headed by hundreds, possibly thousands, of barrels of boiling water and fol-

lowed by the powerful piston of steam. Where bodies of underground water have been momentarily pierced by the steam discharge, as at a subterranean stream or enlargement of the tube for instance, the discharge may be cut off again and again, causing the geyser to play several times at brief intervals after each major evacuation.

The process ends when all the water has been erupted, and the steam pressure is relieved completely. Then the refilling process is resumed. With varying quantities of underground water, in different years and in different seasons of the year, many geysers will vary in discharge interval and duration. But where a well confined underground drainage or seepage system enforces a uniform water pressure and supply in the geyser tube, the playing interval of the geyser will be more uniform.

Noticing the turmoil in the waters in Old Faithful crater, numerous early day travelers let the friendly geyser do up their laundry, assuming that it could be called for and coughed up in sixty-five minutes. The convectional currents, however, carried the garments downward and often hung them on a projection or tucked them into a recess in the geyser tube, so that frequently when the package was finally delivered it was completely done up, torn into shreds, although the shreds were very clean.

"Everybody welcome to join us on a hike over the formation to the geysers," called the park Ranger-Naturalist acting as guide. Two hundred and fifty persons, such as might be gathered from

Main Street any summer afternoon, without change of garb or manner, swarmed after the entertaining leader.

At the Chinaman Spring, about the size of a washtub and twice as deep, filled flush with the surface, we heard from the outskirts of the crowd something about a Chinese having started a laundry there and gone broke at the opening. The story comes down from other sources that a Chinese, having seen the fine laundry work done at Old Faithful, selected a fairly quiet pool with smooth sides which would not tear the garments, and there set up his "laundry."

The soap he added to the water, however, was sucked into the live, but sleeping, monster which suddenly awoke very sick at the stomach. A chemical action on the subterranean gases caused a messy belching and vomiting, in which the clothing was spewed out on the sinter. The mistreated spring was ill for some time before it was able to lapse back into simple silence and beauty. As for the Chinese—well, a spring that could come to life and carouse like an inebriate was no fit partner for an industrious Chinese laundryman endeavoring to establish himself in business.

Great, ugly, running sores in the blistered and burned banks of the Firehole River were transformed into beauty stripes and spots as the guide unfolded the story of the ejected minerals and the geyser-painting algæ. The gas and steam bubbles coming up through the water from the river bed here and there were pointed out as present-day confirmation of the report of James Bridger

nearly a hundred years ago that while wading in the icy waters of the river he burned his feet on the hot bottom. This, he said, was an unusual manifestation of the friction heat phenomenon, as the stream is a rapid runner!*

The Beehive Geyser, across the bridge at the foot of Geyser Hill, was not busy, and on examination proved to have its business hole directly in the top, with an entry way about bee size a few feet away as an indicator. From the top of the cone, in the pictures, we saw it play a pretty plume two hundred feet high. It is evidently a suitable neighbor to Old Faithful.

Toward the Giantess the tourist throng was warned to follow the leader because of danger signs; and openings here and there in the sinter surface showing running hot water accentuated the admonition. The Giantess belied its name and the warnings issued about it, for it only boiled and bubbled gases in an interesting manner in a part of its thirty-foot cauldron. This cavity has a fine, wide splashing surface roundabout, hence if something should suddenly happen inside the Giantess we might easily be compelled to hot-foot it literally. She was rated uncertain, with irregular periods, and long overdue.

A pool with a decorative raised rim nearby is the Tea Kettle, boiling busily without a care or an evil portent. The Vault is a neighboring pool, which someone considered good for a cemeterial joke, the ripple of which did not quite reach us.

*For a full repertoire of authentic Bridger stories, see "James Bridger, a Historical Narrative," Shepard Book Co., Salt Lake City, Utah.

The Sponge spring or geyserlet has absorbed many algæ and built for itself a remarkable rim or cone of colored coral. It is a good entertainer, too, laughing and effervescing joyously for a full minute at intervals of three minutes. It seems to threaten or promise much as the water sparkles begin to fly periodically, but it always ends in a beautiful water fizzle.

The Devil's Ear is a quiet pool, just flush with the surface, shaped like an oyster or the outline of a human ear a few feet across. The lobe has been pierced by a boiling geyser vent, making a beautiful jewel or bubble cluster ear-screw. Hence I failed to visualize the devil in connection with the ear and the earring, for such a "devil" might wear a skirt. Some distance away and badly awry, with reference to the ear, are the Devil's Goggles, a pair of small pools, one smaller than the other, giving the Old Boy a squint in one eye. Like the ear, both eyes are brimful of hot water.

A fine family of four geysers forms a group on a single cone, and because of a peculiar roaring or growling while at play are called the Lion, Lioness and Two Cubs. In appropriate menagerial style, this king of beasts is well isolated from other formations. All the lions were sleeping, however, and no amount of prodding would awaken them; and we had no soap to feed them. "So here endeth the little hike to Geyser Hill," said the guide at the Ranger Cabin bridge.

Early next morning, after the usual devotional at Old Faithful, approximately the same party followed the same Ranger-Naturalist down the

road to the Castle Geyser, the crumbling top of a great sinter chimney. It was spitting a hot-water warning, but did not mean anything. The Castle Pool is very deep, with a fine, dry sinter edge, convenient for visitors. This pool boils violently, becoming as hot as water at this altitude can be, usually about 198 degrees, or the boiling point. It was here the early visitors to the park boiled their meat and cooked their food in suspended kettles and otherwise. Potatoes were thrown in with their jackets on; they sank to unknown depths at first, but as they became cooked they accommodately floated to the surface.

The Castle Well opens out of the general Castle sinter deposit, which is one of the oldest and deepest deposits in the basin. The Ranger discussed the ages of the geysers, as determined theoretically by the rapidity with which names, dates and objects have become sintered over. A thirtieth of an inch of sinter a year over the basin generally is considered a good crop, he says.

Across the Firehole River again is the Sawmill, a geyser without much of a cone, which had worked itself into a great frenzy and was churning and splashing excitedly on our arrival. We were amused by its frantic efforts to do whatever it had in mind to do, but sympathized with it in its total inability to do more than bluster about it. There is a growth in its crooked throat which causes the steam bubbles to pop out in an awkward manner. The horse wranglers in the stage-coach and pack-horse days cleaned their blankets in this pool, suspending them on ropes or poles

to prevent their being masticated in the Sawmill machinery, we were told.

Several little springs, pools and spitters are here and there in the pathway, but we were on our way to the Grand, secluded in an appropriate alcove or vestibule of trees at the edge of the forest. A broad petrified river of sinter led us easily up the slope to the cavernous depressed crater. It was empty, for it had played while we slept and would not perform again until mid-afternoon. Its sunken companion, the Turban, was an interesting sight, as was the registry of visitors in the early eighties in the depths. The likeness of a large Turkish sash turban appears among the sinter pillows in the edge of the pool, hence the name.

The Economic Geyser, said to eject and redrink its contents, was too economical to do even that for us, though its iridescent neighbors, Beauty and Chromatic springs, were obligingly displaying their talents. Back across the Firehole again (and here let us thank the National Park Service for the bridges, the pathways and the guiding signs), we found the big and powerful looking Oblong Geyser; it, too, was slumbering, though it had a mouthful of water, apparently ready to squirt.

The Giant, divorced from the Giantess in both form and location, has a crater like a large hollow stump of a sinter tree, some yards in height, with one side broken out. It shows a lacy curtain of water that is blown up frequently by the gassing and steaming of the geyser. The Giant's periods are from one to two weeks, but when it goes it

goes the limit, for it is the highest spouter in the world.

As we rounded the hill at the old Wylie camp site, the guide explained that the Daisy Geyser has no indicator, for "daisies won't tell." But we were out of luck again, for the Daisy had shown its pretty plume while we were across the river, and it takes more than an hour to refill its system. The Punch Bowl does not play. This is a crested spring with a highly colored rim a foot high, suggesting the splashing stains of a fine fruited punch. It is at the summit of a large sinter mound of its own building.

Black Sand Spring, a forty-foot pool in the edge of the forest, on the brink of a hill, is especially beautiful in its rim formations and internal colorings. It discharges into a swale or basin in which the Jack pines have been saturated with silica and killed, giving the appearance of a poison creek basin below a mining or smelting town.

It is an interesting walk through the forest to the Emerald group of springs, the first of which becomes so agitated at intervals as to merit the name Spouter Geyser. Estimating from the poles, brush and debris about it, the Spouter has not been spouting many thousand years, nor has it washed overboard enough to purge its premises with average geyser cleanliness. Be it noted, that the Government does not change or mar the primitive conditions about any pool whatsoever, if this can be avoided. The Whistle steam vent, like many another scenic object, had a good story, but no show for us.

Across Iron Creek, a stream but a few rods from the dripping snow, are Sunset Lake and Rainbow Pool, hot-water ponds that are visited on a good cement walk bridging the thin sinter crust. Handkerchief Pool is the only laundry left working and open for business, without any penalty for patronizing it other than the loss of some of the handkerchiefs. These may catch in its throat, and be delivered to a subsequent customer, without regard for laundry marks. Here the Government has improved on Nature by building a neat cement rim to the crater, on which the experimental laundress kneels with a prod stick in hand, if it is a good handkerchief the pool has swallowed for keeps. Cliff Spring has built its sinter nest like a swallow, high up on the banks of Iron Creek.

Emerald Pool is another beauty pool that seems to be a living thing because of the wonderful colors in its waters, though it is so large and deep it conveys a sense of gruesomeness. Some logs were thrown into it years ago to beautify or petrify, but they did neither. Some were removed after stewing several years in the hot water, but they fell to pieces, evidently well cooked!

The wife and I were starved to see a reputable geyser on duty; all these miles and all these looks into dry or bubbly holes were not exhilarating, to say the least; so when the other two hundred and forty-eight departed on the long road home we went back for a look into the Grand. The Turban was overflowing, a sign that the Grand was priming itself for its playtime. The leisurely

rising gas bubbles in the iridescent hot water were reflecting sunlight in such a way as to suggest a flame from the nether regions, rather than a stream of bubbles.

At luncheon the day was ended for many friends, whom we bade good-speed on the yellow cars; and after Old Faithful had another play, we returned promptly to be present at the Grand awakening. While still beyond the trees near Grand Geyser, we saw the background through the evergreens suddenly become white with steam; the next instant silvery water spires, like shooting lightning on the top of the steam cloud, pierced the blue sky in a fine arc far above the arm of the forest.

Dashing forward into the trees, we stood before the hissing, pouring geyser-storm almost by the time the first shower of hot rain had reached the sinter. Old Faithful, multiplied seven times, could not produce the dense storm of steam and showering water that clogged the Grand nook, to be wafted away by the breeze in bare time for the second terrific rush from the bowels of the earth. A motion picture photographer had run up carrying his heavy machine, only to find that he should have stopped a hundred yards sooner because of the perspective and the steam clouds.

Again it poured forth, hissing like a battery of locomotives and raining hot water like a gymnasium shower. Again and again a half dozen times, the water volcano tore itself upward without a complete respite at any interval. Moving about it,

as we would a performing circus elephant, to get all the views and miss nothing, we found the antics of the mad monster very satisfying to our longing to see a big one at work. In about twenty of the shortest minutes we ever counted, the geyser tent of steam was let down, pole at a time, in a few dying sighs, like a great multi-pole circus top, and the enormous canvas steam pile lay a mass of shapeless ruins, from which came a flood of running water washing the sinter. Nearly two hundred tardy, breathless visitors stood close in on the proscenium arch of the splendid show, having arrived during the play.

After a glance into the pure white, steam-cleaned crater, now cooky dry and empty throughout, we thanked it for playing to the sixth encore, and then went off down the river. We looked rather disdainfully upon the snoring Giant, and he awoke just sufficiently to spit in our faces as we passed. Following our hearts toward the Riverside, we proposed to see it play, if it took all afternoon.

We read from the Riverside's indicators that it had only a few more hours of repose, for it was nearly full. We measured the inches and timed the rate of rise of hot water in the slanted, double-barreled throat, possibly a dangerous, but an interesting, procedure, to determine rather closely the time when the shelf-like basin would overflow, thus pulling the trigger for the play. After enjoying a siesta interval among the shady trees, we walked reverently into the presence of the Morning Glory Spring for a sort of mental



Grotto Geyser; the River below Chittenden Bridge; and the Canyon Bears,
Yellowstone National Park

caress of this most beautiful and most animate of all quiescent, inanimate creatures.

While we were setting up the kodak for an evening picture of the Riverside Geyser, on the opposite side of the stream, some Boy Scouts came along in a truck marked Ottumwa, Iowa. We told them enthusiastically that we were about to put on a fine show; but the scoutmaster remarked that they expected to remain overnight in the basin, would get surfeited with Riverside in that time, and ordered the young chauffeur to drive on, for it was getting late!

Then came a well-filled automobile, from which a grizzled old-timer descended and hobbled up to a gopher hole under a bush a full hundred yards south of the geyser across the river and several yards higher. "She's full," he called joyfully; "ought to play any time." He told us he had trapped in the park before folks got to buying meals there, and later for twenty years drove teams and wrangled dudes, for various outfits operating in the park.

We could see that the whole ground was as full of hot water as we were of interest, though the cold Firehole River, flowing through and across the locality, had no connection with the underground system. The geyser shelf had been overflowing some minutes, and the collar had received a number of douches from within, when suddenly there shot from the geyser ledge a stream like a giant hose turned aslant on a forest fire.

Steam and water curtained the trees in a vast white mare's tail, or possibly more like a bedrag-

gled ostrich feather thrust into the river bank. From this terrific storm of steam the water showered down like a hard rain upon the ruddy surface of the Firehole. The honeycombed interior of the earth was soon blown clear of water and the powerful brute settled back on its haunches for a rest; it then crept into its gigantic crawfish hole and slept beneath the running stream.

Old Faithful played against the moon for us upon our return, and again ran like a millrace in the dark before we retired. Even in the night I was awakened by the sounds of its running waters. On still another day we followed our unsatiated desires here and there over the glorious geyserland, even penetrating to the turbulent Solitary, deep in the wood to the north. From this boisterous cauldron, well up on the slope, a broad, adamant river of sinter flows through the forest, having strangled scores of splendid lodgepole pines and seared a wide swath a quarter of a mile in length.

Toward luncheon time we explored the Oregon-like landscape farther up the Firehole River, returning in time, as we usually did by careful design, to see Old Faithful play. The yellow cars were coming in again with new passengers; and we made preparations to move on around the Yellowstone circuit in the early afternoon. With hearts weighted at the thought of departing, we placed orders for transportation, and after luncheon bade adieu to the most fascinatingly interesting tract of scenery I know in the world.

CHAPTER IX

THE YELLOWSTONE WHEEL OF FORTUNE

THE delightful ride through the beautiful forest from Old Faithful to Yellowstone Lake is another welcome contact with the magic circle highway garlanding the Yellowstone.

Up the Firehole River the rollicking yellowhounds leaped off the miles in disregard of the steep grade that carried us toward the crest of the continent. At an unloading platform which suggested nothing in particular, we moved to a parapet and peered deep into a noisy, green gorge. Here the merry Firehole tumbles headlong in the Kepler Cascades, just to show the versatility, if not the persistent superiority, of the Yellowstone country.

The Lone Star Geyser is an outlaw from the main herd, but an admirable performer, so they say. It has been corraled in the timber not far from the mouth of Spring Creek, where the roadway leaves the Firehole for the final leap over the Continental Divide.

The walls close in and frown down upon us at Norris Pass, where the road itself is forced to seek its way meekly around the mountainous rocks. The chauffeur pointed out the crevice through which the olden time hold-up men dragged their precious loot taken from the tour-

ists of the stage-coach days, a thrill not available to Yellowstone tourists today.

Isa Lake, on the Divide, is a lily-strewn, maiden-like pond which in the beginning of things raced to and fro in the narrow canyon, in a state of indecision as to which way it should run. But today it has grown placid, content to flow both ways indifferently into the Gulf of Mexico and the Pacific Ocean with each rise of its rain-swelled bosom. Its proverbial indecision, however, is definite and precise wisdom compared with the mental gymnastics engaged in by the tourist who tries to visualize the fact that, though he is traveling from west to east, he is in reality crossing from the Atlantic to the Pacific end of the lake.

Corkscrew Hill is a test of steering rather than speed. It leads downward toward Shoshone Point, whence the distant Shoshone Lake, like a glassy hole in the vast evergreen rug covering the park, appears away off to the south. Here again we ascend and recross the Continental Divide, this time in the right direction.

West Thumb, on the mitten-like map of Yellowstone Lake, is a sore sight, surrounded by boiling mud geysers, pools or pots, sunken in the ground, and filled with a variety of breakfast mushes. They are still plopping away as if the cook who set them aside was in no hurry to serve. So far as known, the pots have boiled their way up through the centuries along with the neighboring hills.

A senile geyser cone rises in the shore waters

of the lake like the bowl of a great bumblebee cell. It is now a hot spring, and it is said that the old timers could catch fish in the cold lake waters and cook them in this so-called fishing cone without removing them from the hook; but honestly I do not see how they could!

Across the lake on the distant mountain skyline is a profile resembling a human face, known as the sleeping giant. His feet are somewhere in the Judith Basin, Montana, toes upward, if his bodily proportions are commensurate with the facial features presented.

I seem to register indifference at the lake. Of course, it is beautiful; so is a tree.

As the flock of park transportation automobiles went chirruping into Lake Camp, a large cinnamon bear deposited himself in the roadway near the fish hatchery, commanding a halt. When we halted, the bear leisurely searched the party with his nose, begging with whines for eatables. Many tourists alighted to discuss the matter with him, only to have his nose thrust into the folds of their garments, snuffling for goodies. It took no little honking and remonstrating by the chauffeurs to induce the party to re-enter the automobiles, thus assuring the bear he had completed his haul. As we passed on, Mr. Bear sneaked off into the timber, evidently thinking he had not done so poorly after all.

We were discharged at the village-like place known familiarly as Lake. This is an adjustment station where tourists are held over by the hostels to prevent congestion at the Grand Canyon.

The lack of scenic interest, however, is largely offset by superior entertainment. On Sunday evening the hostess assembled the tourists in the foyer and began by reading from the Bible and singing a sacred hymn, an evening's entertainment of sketches, stunts and songs by the college help and others. We then understood why the hold-up and desperado days are gone forever from the park.

Here a number of friends who had completed the park circuit departed for the Eastern States via Sylvan Pass and Cody, Wyoming. They had the promise of luncheon at the Pahaska Tepee, a lodge in the forest just outside the park formerly used by "Buffalo Bill" as a summer hunting home. The name is the Indian's designation of the be-whiskered pioneer scout.

A few miles out on the rainbow route around the park next day we switched into the brush to visit the Mud Geyser, a gurgling, nasty, animate thing. We reached its dirty, slobbering mouth by a stairway and sidewalk, for it is on a side hill. Its contents are lead colored and crowded with debris, which is agitated in a threatening manner by eructations deep down in the earth. The Dragon's Mouth is repulsive but irresistible, for at regular intervals it coughs like a partly buried brute throwing water and mud far out of its throat into its large mouth, but does not entirely evacuate it.

It is a beautiful ride down the Yellowstone River and across Hayden Valley, the spring and fall elk pasture. Here we get a look at the meshed

ox bows formed in the curves of a stream below us, resembling the Northern Pacific trade-mark. Suddenly like a fresh excavation in the road or a deep railroad cut through a fine forest, the yellow gash of the Grand Canyon of the Yellowstone River comes into view. With gorgeous taffy-colored walls it splits the country ahead, the forest trees crowding close up on each side.

We pass Chittenden Bridge, a magnificent concrete arch across the stream above a patch of islands in the stream, and notice tourists on foot far below us along the river's edge. There are many pathways and points for reaching the river, and we see balconies built out over misty regions, presumably the waterfalls. But onward the automobile swiftly bears us. Canyon vistas reach us here and there, and soon we haul up at the unloading platform on Inspiration Point.

Evidently most of the pictures extant showing the falls in the distance were made from this general region. A photograph under the skill of the colorist can usually outclass its subject, though the Grand Canyon of the Yellowstone is probably more gorgeous and brilliant than any of its great galaxy of photographic offspring.

There are different stories extant as to the origin of the word Yellowstone, but the raw sides of the canyon resemble a rich, yellow, sulphurous ore, and since the canyon is a half mile wide, a quarter of a mile deep and several miles long, all presenting this same yellowish aspect, there would seem to be no mystery about the origin of the name. The river, like a stream of warm sorghum

molasses fits snugly in the badly bent canyon bottom, with here and there a white stretch at the rapids.

After returning and crossing Chittenden Bridge to the east side of the river, we reported to the camp, situated in a very choice forest on a promontory overlooking both falls. After luncheon we joined a hiking party bound for Artist's Point. This is a projection on the southeast rim about four miles below the bridge. The view is much the same as from Inspiration Point, which is another mile down stream on the opposite shore. The lower falls in the stream, which are the higher falls in amount of drop, are only two miles from Artist's Point, and this, with a good foreground of the stream itself, makes the point a superior general view. The canyon has become famous as seen from this point.

The garishly walled canyon of brilliant yellowish brown sugar, carried the molasses river out of sight to the northeast, without a shadow for emphasis or relief, for the afternoon sun was on our backs. So we returned to camp and to our tent, where we listened with enjoyment to the roar of both falls. Their echoes come up over the rim and through the trees like the sound of a breeze. The picture of the Upper Falls was framed in the pines before our tent door, and a string of benches on the rim was alluring to an admiring but ever-changing group of callers. I descended the trail to the misty foot of the falls, but it was too much like an autumn rainstorm in a driving wind; and the picture lacks perspective.



Next morning the canyon guide headed a party toward Uncle Tom's trail. We fell in line, but discovered forthwith that the trail hung over the cliff like a tangled rope, its free lower end being sprayed by the foot of the great falls and washed by the boiling stream. Though the guide patiently showed each follower how to perform the necessary acrobatic stunts safely to make the descent, there were those who had not the courage or the monkey grip to follow the gas-pipe railing over the first sheer ledge. Among these was my wife; so we returned, leisurely to round Chittenden Bridge and to descend to the brink of Upper Falls. Here we listened and gazed enraptured until the country began racing upstream under the water which seemed to fall off the rapidly traveling ledge. By this sign we knew it was time to go.

We then sought out Crystal Falls on Cascade Creek coming in from the west. We had seen its hairy wisp from the tent. The trail to the spray is only barely discernible, but the close-up view of the falls is worth the ramble. A fine horizontal trail leads direct to the foot of the wooden stairs at the brink of Lower Falls. Here again we submitted to the mesmeric influence of the roaring, tumbling river, which persisted in standing still while we and the scenery ran pell mell upstream.

The swaying end of Uncle Tom's trail on which our friends were still descending, apparently hand over hand, was on the edge of the spray across the falls and three hundred feet below us, an irresistible temptation. Thus, early that afternoon, we again essayed Uncle Tom's trail, and in a

single hour set with sixty golden thrills we were in the spray of the great falls. This tumble of water is but a fraction of the width of Niagara, but the leap is twice the distance; and from the splendid viewpoint on this trail the expanded, white, opaque brush of the falls is a wonderful sight.

Far down the stream runs the trail, over the spray-wetted rocks to the water's edge, where the roaring, racing river is closely confined between the rocky banks. From a cement-like formation in the edge of the stream, whose wet bosom had but recently been exposed by the seasonal lowering of the water, a fine stream of hot water about the size of a soda fountain straw squirts upward a couple of feet. This is the Tom Thumb Geyser, the tiniest of them all, at the end of the trail.

Toward evening we strolled out to the garbage dump to see the bears, having already had our interest in them well sharpened. Over at West Yellowstone, on the way into the park, we had seen a young bear confined in a pen, but attached to a tree by a chain. A number of boys were teasing the friendliness out of him in every conceivable manner. The bear had been taken while yet a suckling, when its mother was killed at the edge of the park the previous spring; and now, though he weighed a hundred and fifty pounds or more, to the boys he was still a pet.

A large surly bulldog which had whipped everything that ever stood before him was induced to take an interest in the game, and at an oppor-

tune time the gate was opened and the dog pushed in. He immediately sized up the situation, growing tense for the battle; squatting low, he was ready with a vicious bone-crushing or wind-stopping bite on foot or throat, as might be most appropriate, when the bear approached.

The bear advanced, but two feet from the crouching dog he stopped, smiled (if a bear can smile), and sat down. A little encouragement from the boys got the bulldog on his feet again with his hair roached significantly, when suddenly the little cub of no experience whatever became a full-grown bear of unlimited strength and assurance. His muscles visibly tightened, his spinal swath of bristles stood up like a brush, and he quickly "covered" all possible advances of his domesticated opponent by a most admirable presentation of his "dukes" while in an upright sitting posture.

It sent a thrill into every one of us lest the dog should make a misunderstood move and be mercilessly mauled before he could be recovered; but the dog had a dog's instinct of a vastly superior foe, even if he had been misled by the inferior judgment of the boys. When he saw a veritable crater lined with white, jagged bear's teeth, ready to engulf him, and two vicious paws with ugly hay hooks on them reaching out on each side, the bulldog, with one inarticulate yelp, cleared the fence and got under the nearest store instantan and in disorder because of the barrel hoops and tangled wire which caught onto his

neck while he was running with his thoughts behind him. He was licked to a finish without having had a hair touched!

At the canyon garbage dump we found bears beneath nearly every large tree, and some cubs were taking siestas in the trees. A brown, sun-burned bruin, whose three or four hundred pounds probably prevented him from getting up much speed, had selected a snoozing place beneath a shady tree. He slept with one eye open, however, and on our approach to within fifty feet, rose up on his haunches to make a survey of the situation, possibly to see if we were as interesting to him as he was to us.

He was a fine specimen, his head nearly as high as my own hat. I spread the kodak tripod for a time exposure, only to find the bear's image was much too small at that distance. Moving up a few yards, I looked again, and then, since the bear tolerated me patiently, I walked forward again, assuming an attitude of far less concern than I was actually enduring at that moment. He seemed to understand perfectly that he was posing for a splendid picture.

But I was too greedy; I wanted him just a little bit closer so that when I spread the tripod legs only twelve or fifteen feet away from the half-tame brute I noticed while gazing into the viewfinder that in a fraction of a second the image of the bear suddenly grew very much bigger. He really didn't move his hind feet from their tracks, that was too much trouble; but when he measured his immense length toward me with his bluffing

leap, bringing both his forearms down upon the ground before me like the collapse of a roof, with a mischievous huff from his giant mouth agape, I fled in a very successful manner, with no further effort to conceal my real feelings, dragging the spidery kodak by one leg. On looking back, after a few fine strides toward my laughing wife, I am sure I could see a little twinkle in the big fellow's eyes, if not an actual smile on his mouth, as he drew himself together again for another pose—a distant one to be sure.

Several bears came up when the fresh garbage arrived, but this big boss of the dump had things pretty much to himself with the other bears, as he had with me. One black fellow, short a hundred pounds or so in weight, however, disputed the brown bear's right to take a molasses can away from him. There were some vociferous argumentations, boy-like, and before it was settled the black one took a couple of cuffs in the ear. This sent three young bears into the tree where they umpired the fight in school-boy style by egging them on. Being thus made fun of, the grand daddy bear dashed to the tree and clasped his great arms on the trunk with a terrible intent. This sent the smart Aleck cubs higher into the tree for safety.

We were disappointed again, however, for the old boy was only bluffing. He retired to work on the garbage pile, and gradually the other bears came up again and joined him. Even the cubs ventured down a limb or two. Then they got to playing with each other on the limb, which dis-

turbed the big one at his meal, so that he beat the ground with his paws as a warning, like a cross old man. They behaved for a few minutes, then began shaking the big limbs, apparently just to tease "grandpa." But he was wise, or more probably had a sweet can that needed a good licking instead.

The little bears finally got down and did some nibbling on their own account but they were sagacious enough to keep a wide field of garbage cans between them and the boss. They could slip their heads into a gallon can for a sniff, confident that any advance by the common enemy would be attended by a warning noise among the garbage cans. However, he finally drove them off the dump, apparently because they were making a monkey out of him before a large party of tourists. A black one with a tawny breast went the boss bear one better by striding out to the tourists and sniffing among them for something good; and when he failed to get it he nipped impatiently at a trouser leg.

Thankful it was not my trousers he was nosing, I recalled very vividly the Ranger's admonition and the warning signs about camp: "Don't Feed the Bears." If they were never fed they would never ask impertinently for food in this way. Every one who has enjoyed the presence of the bears in the park should have this rule brought home to him in some convincing manner. This will prolong the lives of the bears, we were assured, for every bear spoiled in this manner becomes "vicious" and soon gets a last look into

the muzzle of the Ranger's rifle, through no fault of his own.

We selected an outgoing automobile the next morning that was scheduled to cross Mount Washburn; and in twenty minutes we were speeding along the pretty snarls in the twisted roadway which corkscrews and lariats its way through the forest and open parks to the top of the Yellowstone world. From Mount Washburn's summit the immeasurably vast timber blanket is seen to be richly figured, with here and there a bare peak or ridge. The most significant of all the views is that of the roadway itself, over which we came, and of the winding avenue through the forest a few miles to the east which is the canyon of the Yellowstone River.

A half hour's gliding from the all-summer snowdrift on Washburn's shady side is Tower Falls, a stream which winds through a congregation of tall rock spires and then falls more than a hundred feet just before joining the Yellowstone River. We then had a delightful two-hour ride down the river under the overhanging cliff, through Camp Roosevelt, past the beaver dams and over the hills to Mammoth station, or Yellowstone Park post office and town, where we arrived in a drizzling rain about dusk.

It was a cold, clammy world outside, with no more inviting place to sit than the hot springs terraces; but there were persons inside willing to play the piano and sing, which was a restful change from even Yellowstone Park scenery. Some deer came to the back porch for food, show-

ing great confidence in the clicking kodaks. On the way to our tent we noted that Jupiter Terrace was wetted and polished by a film of flowing, steaming water, giving the appearance of a great slag dump at a smelter. But soon the darkness obscured all but the trickling sounds, which lulled us to sleep.

The next morning a capable Ranger-Naturalist conducted our party over the Mound, Minerva, and Cleopatra Terraces, explaining this new trick of the Yellowstone hot springs, with their sinter deposits and algæ accretions and colorations. The terraces are approximately a counterpart of the small beach lines in the sand formed at the delta of a slowly flowing stream. The hot springs flow out over horizontal steps or shelves a few rods in width, the width depending upon the size and age of the deposit.

Possibly "steps" would be a misnomer, as it suggests walking on them. This is not done. The formation is softer than that at the geysers, being a lime travertine; and a Ranger who is all eyes and occasionally some voice sees that tourists follow designated trails.

Orange Geyser is not much of a gusher, but it has a magnificent cone of brilliant orange hue, some twenty feet in height and about two rods across. Some of the park deer intercepted us in the forest neck on the short cut to Bath Lake. This pond in a glade is warm, and bathing is allowed, even in midwinter, though it is evidently only lightly patronized, judging from the small changing rooms.

The Devil's Kitchen is a deceased geyser or hot springs crater with an opening a few feet in diameter, and an inner chamber as large as a good sized kitchen. Descending by way of stairs and ladders we found the internal heat to be quite appreciable, while a bubbling mudhole in one end suggests a slight connection with the earth's warm bosom beneath. The upward view of the opening from within gives a fine conception of the hollowness of some of the geysers and springs, since the walls are not many inches thick near the top. It is like the interior of an enormous, half-buried pair of clam shells on edge, partly open at the top.

The Angel Terrace, which is a very beautiful formation some acres in extent, is in a forest where the travertine has strangled a great many trees. The exquisite beauty and brilliance of the water-polished formation in contrast with the dark tree trunks makes it seem supernatural enough to have been used by ethereal forms. One section has gone dry and its decaying mass is dull colored and crumbling. We also understood that other sections of the terraces go dry after prolonged droughts in the park.

We came back over the Jupiter and Pulpit Terraces, which are the largest of all, being several acres in extent. The water flows from large ponds or hot springs on their summits. The view of the terraces from above and from one side with the morning sun enlivening them is exquisite, but the terraces are not spectacular like the geysers, nor do they admit of familiarity like the Morning Glory Pool.

On our return there was ample time before noon to visit the town of Mammoth, nestling in the lap of the mountain valley; and to pay our respects to some of the government officials established there. It became obvious to us that the long line of persons waiting to confer with Superintendent Albright pointed like an arrow toward the executive pinion which makes the glorious Yellowstone circuit a wheel of good fortune instead of a roulette game.

After luncheon we walked over to the edge of the buffalo pasture, but the buffalo were mostly grazing afar. Then we were off early, under a threatening sky, but snugly tucked into a big yellow bus with an exclusive party bound for the west exit. It was the beginning of the end, and a shade of sadness deepened the meteorological gloom.

The Silver Gate, Bunsen Peak, The Hoodoos, Golden Gate, Gardiner River Canyon, Rustic Falls and Swan Lake Basin flew behind like depot debris after a through train; a schedule is often a cruel thing. The road was blocked in a dense part of the forest by a string of empty automobiles, whose passengers were partaking of apollinaris water at a spring nearby. We also took a few minutes, and our empty hands, in which to get a drink from this unique water.

Obsidian Cliff, the celebrated Glass Mountain of James Bridger's stories, next flew past like a coal chute on the left, as a touching reminder of the fleetness of history. Beaver Lakes, a chain of ponds on the right, formed a connecting chain in memory with the trappers' days of old. Roaring

Mountain far on the left resembles a clearing on a forested hill, with the brush piles still smoking. Twin Lakes or ponds, were said to be famous for their colors, but the colors were not fast enough for us to see. However it was a cloudy afternoon; maybe they, too, are happier in the sun.

Eventually we stopped at what appeared to be an abandoned Georgia farmstead where a low valley between the forested hills was considerably wrecked and ruined, showing many smoking, steaming holes and pots. This is Norris Geyser Basin. The driver pointed to a plank walk across a steaming swale, and to a turn in the road a quarter of a mile distant where we should rejoin him. It was a rather treacherous looking region of unknown solidarity; and Whirligig Geyser near the sidewalk was always busy, so we had to watch for a chance to pass it. Mud Geyser is an uninviting, fearsome pool of mud in action, which looked as if it wanted to, and could easily, spill out of its great hillside pocket as others seem to have done, possibly to engulf us! Then came the Black Growler as gruff and ill tempered as a bear with a sore foot. Truly it was a gloomy day!

The driver having belittled a patch of two dozen pools, springs and geysers across the road, applied the gas the moment the last passenger was aboard. At the first contact with the Gibbon River we noticed a sagebrusher on his knees before a mirror on a rock-like formation far out into the river, getting a hot water shave from a spring in the icy cold river.

In response to a chorus of exclamations from

the party the driver hauled up at Gibbon Falls for a minute. But a chap who alighted for a photograph was reminded that this was not a scheduled stop. Honk! honk! And we left behind, with but a passing glance, another of the many features, which alone, would make the Yellowstone country famous.

Then came the junction of the Firehole with the Gibbon where we had been a week before; and the group of road patrolling motorcycle Rangers, who had welcomed us into the park, as gaily waved good-bye! The journey was being brought to an end, and the Terraces, the Canyon, the Geysers and the magnificent highway through the forest passed in fond review, each bidding a most impressive farewell; and the world's greatest vacation land was but a memory!



Lower photo by Harry Sh
 3 The Deloit Jupiter Terrace, Mammoth Hot Spri

CHAPTER X

UTAH'S NATURAL BRIDGES

LIKE a latter-day Israelitish band on horseback, the Governor's Natural Bridge party, flanked by a flock of bobbing pack animals at large, flowed out of the corrals at Kigalia Ranger Station in fine spirits, from our first night's encampment. The vehicle road ends like everything else but the view, at the Bear's Ears on the western edge of Elk Mountain, only a short ride from Kigalia, and here we halted to reconnoitre.

This elevation overlooks one of the most expansive and broken wildernesses in the West, as yet unroaded save by grotesque channels carved by wind and rain. Grand Flat, is gashed with the wriggling filaments of Arch Canyon and Comb Wash leading southward, and Grand Gulch leading southwesterly; while the more distant field is rough plowed and forbidding.

Figuring three-quarters of the clearly visible horizon are the snow-tipped La Platas and Ute Mountain in southwestern Colorado, Shiprock Mountain in New Mexico, the Navajo peaks in Arizona, and Navajo Mountain, Kaipairowits Plateau, Boulder Mountain and the Henry Mountains in Utah: a wilderness expanse of some five thousand square miles, with scarcely a human habitation or improvement.

Elk Mountain is one of those lofty tablelands, level roofed, and spread with stately log-sized pines and luxuriant livestock pasturage, the rim of which breaks away in all directions in precipitous walls and deeply indenting canyons, as at the Grand Canyon of the Colorado. Thus the immediate foreground of the view from the rim is knifed and lacerated, with but few passable trails.

"A young bronco buster was cutting logs for me here last fall," said Zeke Johnson, veteran guide, as we headed one of these deep, glaring ravines. "He was afraid a big tree near the edge would get away from him into the gulch, so he roped it with his lariat as high as he could throw to a snag limb, leaving the other end of the rope on the saddle horn, trusting the horse to do the rest. The tree went down into the hollow with a terrible tumble, taking the horse headlong with it. It didn't kill the nag," Zeke finished after a pause; "but it tore him up terribly."

Utah's celebrated Natural Bridges are located, almost lost, in the maze of cedars and slick rocks, twelve or fifteen miles west of the Bear's Ears. Somewhere out in the same rugged country is Clay Hill Pass, Hermit Lake and Hole-in-the-Rock on the Colorado River, of tragic moment in Mormon history. All these points are on Zeke's inimitable itineraries, when at the head of small but strong parties of adventurers. But for us, a party of forty-two, with a herd of nearly a hundred riding and pack animals, the last look from the Elk, across the undulating but immobile sea, may be likened

to the Biblical prospect from Mount Pisgah, for a tedious and deterring trail led unwillingly across the way.

In the winter of 1879-80, a large wagon train of Mormon settlers unfortunately selected this worst of all pioneer routes, journeying from Cedar City via Panguitch and Escalante, through Hole-in-the-Rock, in the wall of the Colorado River, after blasting it wide enough for wagons, to settle at Bluff, Utah, and after six months, this miserable train emerged at destination broken, bleeding, and depleted as hardly even the Israelites of old emerged from the wilderness. And this cruel country, which opened so reluctantly before so desperate a people, closed up afterward as effectually as did the Red Sea when the Israelites had passed.

It was an exciting tale that Perkins told us as he sat askew in his saddle, of the roundups of cattle each year from these long-horn cedar growths, in the upset range country. The wild stuff is trailed through the heavy brush on the hard run, and the rope is let fly at the first close contact with the steer. He is promptly thrown, hog-tied and dehorned on the spot by the lone cowpuncher, and then taught to lead by the saddle horn as if he were a puppy.

The cattle are then bunched in the canyons and taught to drive by running them to and fro, and fighting them in places where they cannot escape. Then they are driven over the flats to Arch Canyon or Comb Wash, where good pasture and tight canyon walls preserve, to await the completion of the roundup some weeks later. It added zest to

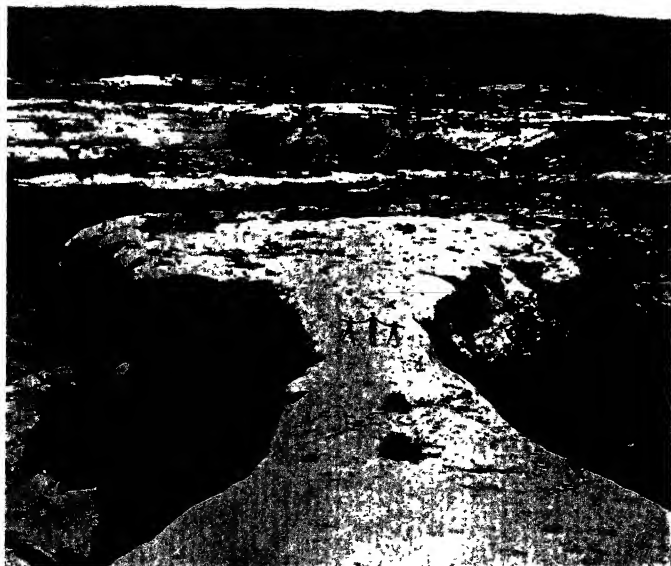
the tale to note that Perkins had a tooth or two missing, probably lost among the cedars; but it is great sport, he avers.

Our tourist caravan had been careening through the sand and cedars for some hours, and it was well after noon by a number of appetites, when the cedars parted ahead of the sinuous cavalcade and we were restored to amiability by the sight of gleaming sandstone forms in Armstrong Canyon. Even then there were some who felt that the bridges would have to be whirligigging or summersaulting vigorously on our arrival, if they were to prove more attractive than a sandwich and a siesta on a quiet, shady stone.

But immediately the word came running from the head of the caravan that the Edwin Bridge had been sighted; and there, sure enough, in among a number of pillars, shoulders and promontories, a half mile distant, like a hole in the far wall of the canyon, was the first of the arches we had travelled so long to see; and it wasn't whirligigging either.

"I simply cannot see it," complained Doctor Lyman; "I do not believe it is there yet." Others, too, failed to visualize the bridge, sunken well below the horizon, from our elevated line of sight, for it is by no means spectacular at first sight. There is reason to believe, however, that the hungry doctor had reference to the lunch canvas, which he tried to see spread out beneath the bridge.

Later, while the horses drank from a water pocket in the depths of Armstrong Canyon, only a



The Edwin Natural Bridge, Utah. A First View; and From the Top

thousand feet from the Edwin, a neat patch of blue northwestern sky smiled through the bridge upon us and with it came a thrill of admiration for the stony structure. A tiny thrill at first, but as we followed the leader over the inner sand-rock shoulders of the canyon the rim wall rose to an awesome height and the bridge bulged upward, higher and more austere with every step. As the echoes of the clanking horseshoes showered down upon us from aloft when we were immediately beneath the wonderful span, the thrill grew to a cooling chill of goose flesh, rebuking us severely for our first inadequate appraisal.

Heedless of the Indian legend forbidding passage under the bridge, on penalty of some vague but dire disaster, our whole train threaded itself single file through this majestic arch, and forthwith cluttered the rocky floor of the gulley to the north in pitching our encampment.

Luncheon was to be spread immediately, as every one knew, but while I was mopping the saddle stains from Kelley's back with the aid of one eye, and guarding myself from that rapidly enveloping skyline of stone with the other, a human figure appeared, to my surprise, against the sky over the eastern abutment. Doctor Kingsbury, more than sixty-five years young, couldn't resist the impulse to scramble skyward before the fairy canvas rolled out with the cafeteria service.

A handout from the skillet wranglers, a blanket underneath the ledge and thou, O Edwin, beside me; a wilderness were paradise enow! to paraphrase the Persian poet. The beans and biscuit

disappeared and the siesta blanket did not fit my back, but the Edwin silently multiplied its features like a revolving kaleidoscope. It had begun to summersault with interest, and had become a great milky way in the sky above us, composed of creamy clean sandstone. It comes down to earth, in the bushes a few rods distant, with abutments so massive and so grand as to rebuke familiarity. Even an admiring engineering mind may forget to look for the customary escutcheon of the builder.

"Do you think this would be a good time to secure a few feet of motion picture film?" asked Doctor Sears. Then I knew that he, too, had begun to comprehend the significant changes the bridge was undergoing in the minds of all; and we applauded his desire to film some of these fleeting changes.

On the west abutment, in a sheltered spot, we read the following painted legend: "The Edwin; span 200 feet, height 111 feet, thickness 10 feet, width 30 feet. April 14, 1905. Commercial Club Expedition (Salt Lake City), H. L. A. Culmer, S. F. Whitaker, and C. G. Holmes." A government elevation hub in bronze, on top of the bridge, is marked "5725 feet."

The camp bedding was deposited where wanted and the horses were taken through the bridge and over the slick rocks around the western end and turned loose in the lower canyon. Several of the animals, unaccustomed to dining on scenery, such as decorates menu cards in dining cars, did not leave the canyon blockade, but others fared bet-

ter on cottonwood branches, weeds and some grass.

It was a good time to ruminate, rusticate, and, for most of us, to bathe in the water-pocket bathtubs, with sun-heated water on top and cold water in the bottoms! Since many, emulating Huckleberry Finn, had turned in and slept in the afternoon, a moonlight parade was made across the top of the bridge after supper. I do not expect any campfire, anywhere, to bring a greater pleasure and satisfaction, with its grandiose environment, and its happy, congenial friends about the blaze, than did the campfire at the Edwin. The region is rich in adventure and history and the blazing fire illumined the tanned faces of a half dozen pioneers who made much of that history.

The night dropped rapidly around us, pierced by stars in a ceiling unbroken save only in that one great stone pathway overhead, its belly reddened into richest beauty by the campfire glow. Every crackle from the embers was tossed back into our midst by the echoes, and every flash from the flame brought a smile from the bridge above, while the story tellers on the rocky shelves gave reminiscences about the fire.

It was twice bedtime, after such a day, when I nestled into the pneumatic pillow; but the moon was just reaching the line of sight above the eastern bridge abutment and had silvered the upper edge of the span in a rare illumination above the deepening reds from the waning campfire glow. As if by prearrangement the great smiling moon rolled along the top of the bridge, awakening me

at intervals, as if to say, "Try the view from here!" I was grateful for every interruption, even to the last, as the moon rolled off the western abutment to escape the competition of the eastern dawn.

We trailed light down the canyon that morning, leaving the Edwin encampment intact. It is only four miles over the trail to the Caroline and seven and one-half miles to the Augusta bridges. Armstrong Canyon is a deep and rugged gorge and the trail alternates deep sand with blue scratches on the rounded rocks, presenting some scenic value in itself.

The Sitting Duck is a feature requiring no imagination to see, for its beak and neck, its folded wings and its blunt tail are well formed in the sandstone a hundred feet high and several hundred feet in length. The beak of the duck was evidently once a bridge span, ages ago, formed by a great ox bow bend in the stream which severed itself at this point when the ends of the ox bow touched. The far end of the old bridge has gone with the centuries. And one cannot help but contemplate a similar fate for the slender Edwin, which Doctor Pack, geologist, points out is the oldest of the bridges because it is the thinnest and the slenderest.

The trail leads out of Armstrong Canyon, near its junction with White Canyon, toward the downstream promontory, a few hundred feet above the water-pocket remains of the stream. The upstream section of White Canyon appears at first from here to be completely blocked by a great corrugated sandstone wall at right angles, reach-



Middle photo by Dr. M. J. Macfarlane

Caroline, Edwin and Augusta Natural Bridges, Utah

ing to a height of several yards above our viewpoint. This dam has, however, been pierced by the stream in a great hole underneath, forming the Caroline Bridge. Its span is 250 feet, thickness 50 feet, width 60 feet, height 165 feet, according to the rapidly disappearing legend painted at the high-water line, which we read later. This is the youngest of the bridges, having the heaviest body in proportion to its size.

Zeke says the trip to him is never complete without a camp at the Caroline, and while the great amount of shade and water does make it a fine camp site, and horse pasturage is much better here, methinks Zeke's heart goes out to those fine animals of his which one by one fell from the miserable trail not far from the Caroline some years ago.

Once the trail itself slid off the ledge, carrying with it a fine pack animal. Zeke dashed to the rescue and cut the cinches as the animal lay in an abnormal sitting posture on a six-foot shelf after it had slid and fallen some distance. But the shelf was too narrow and the pride of the family skidded down the roof of the rocky world to a sheer ledge and thence more than a hundred feet in free air to an angular boulder the size of a cottage in the stream below.

White Canyon could appropriately have been named for its colors and brilliant stone surfaces, though it probably was not. It is set with beautiful walls, precipices and fine figures, with a number of good arches which would become famous but for the counter glory of the three great bridges

nearby. Thus it was a short and interesting three and one-half miles to where the train was brought to a halt by a reverberating salute from Zeke in full voice, "I take my hat off to Augusta."

The salute was returned by many wide sun-glinting smiles from this magnificent bridge, while Governor Mabey, Mayor Neslen and other distinguished visitors passed under the greatest triumphal arch in existence. Under its friendly shadow forty-two horsemen and women found shelter for luncheon and lounging and the animals found a little forage. Owing to the extreme height of the span, the bridge shadow traveled with surprising rapidity across the stream basin, and our rest was brief.

The canyon here is comparatively deep and, while this is the highest of the arches, it is not as high as the adjacent walls. Great hummocks of rock ride the abutments on each side, rather spoiling the structure as a bridge from an engineering point of view, though its great rugged lines and its fine color make of it a stupendous freak of nature. It is in fact set down in a wide country filled with striking freaks of weird creations and of enormous size.

Possibly we should record, in compliment to the memory of Harry L. A. Culmer, the Salt Lake artist whose paintings have helped to make these bridges famous, the following legend placed by him on the eastern abutment of the bridge in April, 1905: "The Augusta Bridge, height 265 feet, width 50 feet, thickness 83 feet, span 310 feet." Deducting the thickness from the total height,

leaves 182 feet in the clear. Its great arch would stand forty feet above the average twelve-story office building, and its massive abutments are an ordinary city block apart!

We climbed up the slick rock shoulders in a long Alpine string, aided by trusty lariats handled by the sure-footed Zeke and Perkins, and crossed over the bridge. To reach the bridge floor it is necessary to climb to an elevation considerably above the bridge, whence the apparent magnificence of the structure is greatly diminished. But its glory returns manifold while we are descending from the easterly abutment by way of the south and it easily earns its place in all hearts as the Queen of the bridge country.

Another bridge was found about a mile above the Augusta, much older than the Edwin; but it had fallen centuries before we arrived. Its abutments are still intact, standing about one and one-half times the length of the Edwin. It was christened and mourned, in the same ceremony, as the Fallen Bridge.

From the Augusta to the Edwin the distance in an airline is less than two miles. Perkins, however, who assisted with the survey of the Natural Bridges National Monument and climbed the gulleys and precipices with the aid of his lariat and his nerve, said we would have to retrace the canyons despite the ambitions of an adventurous few. After luncheon under the glorious Augusta and a visit of admiration and respect to the unique Ladder Cliff Ruin nearby, we trailed back toward the Edwin with hats off in farewell to fair Augusta.

It was yet early when we reached the Edwin, and most of the riding animals were ridden in a string across the top of the bridge to the rhythm of the motion picture machine. Safe footing on the bridge floor is about as wide as an ordinary residence district sidewalk; when Mayor Neslen's mule halted to stretch its inquiring neck over the unrailed side, the Mayor said the space shrank out of sight under the ribs of the brute.

Parting company with the Edwin next morning was like leaving a friend. There wasn't an aspect we had not learned to adore, nor a feature that was not intimately familiar to us; yet it was so superior, so austere, and so strange, that the beautiful creature seemed to belong away out there in the heart of the wilderness. And being a stately but senile patriarch, one wonders how much longer its frail form will stand!

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CHAPTER XI

DOING THE MESA VERDE

AS the automobile glided through the cedars eastward from Monticello, Utah, there appeared to the right ahead, as an elevated segment of the horizon, and wedged into the southwestern corner of Colorado, the historic Mesa Verde. Its lofty form, more distinctly visible at its crest through the clearer air, suggested an ethereal realm let down from the skies of mystery almost to the level of the existent earth.

From Cortez, a little later, the near edge of the "Green Table" (in Spanish, Mesa Verde) occupied the entire southern horizon. In its banded tablecloth border we discerned the strata of the faulted uplift; and we looked intently for giant-like elves who might still be feasting from this dining table aloft. We approached the royal table through the fringe of its evergreen draperies, and at the national park boundary began the majestic ascent on a graceful causeway which well might lead to a realm of enchantment.

Elevation was gained on the folded highway without appreciable increase in distance from the valley, and the thrilling views of the Mancos country dropping away to the northward confused and silenced our tongues as might the scaling of some historied Tower of Babel. Very soon, however, the

foliated eaves of the tableland were reached near Point Lookout on the northeastern corner.

Southward and southwestward, as we made the turn, the rich, green tableland tilted perceptibly, spilling its foliage a half dozen miles away into Mancos River Canyon. A dense field of pinyon and juniper cedars on the lower portion of the Mesa is deeply cut with yellowish gashes and twisted chasms which figure the green tablecloth with the sacred serpent designs of the ancients. In the niches in the walls of these canyons we were to find the quaint homes and the curious culture of a vanished race.

Still farther into the southwestern haze some forty miles distant, and riding low between the purple bluffs paralleling the San Juan River in New Mexico, tottered the stately Shiprock, like a phantom sailing vessel. We could readily conjecture that this weird desert craft had lost its sea and become petrified in the lapse of time since it bore away to an unknown port the busy folk who once enlivened this storied empire.

The serpentine roadway darts to and fro across the foreground, heading the canyons and balancing itself on the ridges to earn its name, the Knife Edge Road. Just as it disappears among the cedars three or four miles distant, and a thousand feet lower, it brought us up at Far View House, a compact pueblo or community home a hundred feet square, rising out of the dim, historic past.

Far View is a well-chosen name, we found by trial, though probably not the name given by its builders. It is the only ruin that has been exca-

vated and repaired out of a total of fourteen such human community hives in this immediate locality, according to the guide in a becoming national park uniform who seemed to have been conjured up on the spot in answer to our desire for information. The other houses are but smooth mounds of drifted sand revealing vague outlines of the fallen masonry walls, all more or less overgrown with cedars and sagebrush, as was Far View only a very few years ago.

The walls of Far View were repaired on foundations found intact, utilizing only the stones lying nearby which had fallen down. The tops of the walls, now from four to eight feet high, have been waterproofed with cement to arrest deterioration, explained the guide; but otherwise the "house" is believed to have been restored to approximately its original form, except that it is now roofless.

As we strolled meditatively over the naked walls, the guide brought forth for our entertainment the diminutive inhabitants from the cemetery a hundred feet distant and assigned them to such tasks as grinding corn meal in a rear room, weaving feather cloth in another chamber, and making baskets and pottery in other workrooms. Some he brought in from the Mesa laden with berries, nuts, corn and game; others he set to work preparing food at the fireplaces, and still others in this congregation of the imagination he placed in reverential attitudes in the kivas. He closed the storied visitation with a ceremonial dance and festivity on the spacious plaza at the south, in which all the inhabitants participated,

in the twilight of that happy, pueblo dwellers' day.

Southwestward from Far View it is four miles and fifteen minutes to Spruce Tree House, but we stopped on the way to inspect Cedar Tree Tower, a few rods east of the highway. This is said to be one of the most mysterious structures on the Mesa, having baffled archæological explanation. A thick-walled tower of excellent masonry and well-dressed stone stands fifteen feet in height, almost hidden among the trees. Directly in front is a very fine, completely equipped sunken kiva, connected with the tower by an underground passage. To the engineer the unit suggests a ceramic or tile kiln, or possibly a New England meat-curing smoke-house. But the pathway from the road, to and around these features, describes a great question mark.

In the neighborhood of Spruce Tree House are grouped the public utilities and national park offices. We registered at headquarters and were allotted a rustic cottage overlooking Navajo Canyon.

Gathering with other tourists at the campfire circle at one-thirty o'clock, the party started on a tour of the cliff dwellings, in charge of a park Ranger-Naturalist. At Soda Canyon ledge, two and one-half miles southeast by automobile, a footpath, like a fragile route to the yesterdays, originally formed and smoothed by bare or sandaled feet, led off the rim rock and along the face of the wall to Balcony House. The last lap in the trail, after passing beneath the eyrie-like ruin, is



Lower photo by George L. Beam
Balcony House Cliff Ruin; and Spruce Tree House,
Mesa Verde National Park

by way of a substantial ladder of prehistoric pattern, if not prehistoric make.

This secluded ruin is a homelike domicile which, with its splendid balcony flush with the cliff, completely occupies a large cave in the sandstone wall. A feature about as pleasing and surprising as a phonograph in such a place is a spring of water at the rear of the cliff shelf. A picturesque abode, with a magnificent canyon view, it is also an impregnable retreat, leading to the conclusion that when the occupants left Balcony House they did so of their own volition, leisurely and no doubt regretfully.

At the south end of the balcony a few of us crawled through a small tunnel left in a slit of splitting rock when sealed by the early masons. Here we found a series of prehistoric nicks an inch deep leading upward several rods over an otherwise glossy hip of the sandstone wall toward the rim. It was unquestionably a route of egress for the agile cliff dwellers, but not inviting as a present-day route. A few yards farther south the shelf pinches out on the sheer wall, hence we humbled ourselves again through the hole and sought the automobile seats a half mile up the incoming trail.

Cliff Palace was a striking surprise, and produced an enduring thrill, being the most impressive sight in the park. Walking unsuspectingly up to the brink of Cliff Canyon our astonishment was expressed in an audible chorus at the sight revealed a few rods distant at a downward angle in the far wall of the canyon corridor.

A yawning cave three hundred feet long with its lips parted a full fifty feet in the middle, and its mouth opening backward into the darkness, is crowded full of shapely and well arranged kivas, rooms and walls, while a large number of these structures stand far out on the lower lip in the bright sunshine.

Framed with a smooth, vertical rock wall above, and a green tree-grown talus below, the Cliff Palace picture forms one of the most imposing and instructive murals ever hung on Nature's walls. This architectural maze sweeps away forever all thought of the poverty, indolence and ignorance of the race of builders.

A few modern ladders downward, and a wall-hugging trail on a shelf, brought us to the conversation-stilling outskirts of this unique, crescent-shaped cliff city of the fairies, as strange and silent as the tombs of Arabia.

In repairing the ruin the rooms were numbered serially on a diagram drawn to scale, but the native occupants must have designated the rooms by their relation and proximity to the various kivas, or by clan names, when they wanted to borrow a bread-baking stone or exhibit a new basket pattern. The seven or eight hundred people, when they were all at home in Cliff Palace, must certainly have densely thronged and overrun the place like ants.

At the behest of the magician Ranger, children thronged the houses, bobbing in and out of the doorways, swinging from corner or roof poles, cavorting on the roofs, or romping in the plaza,

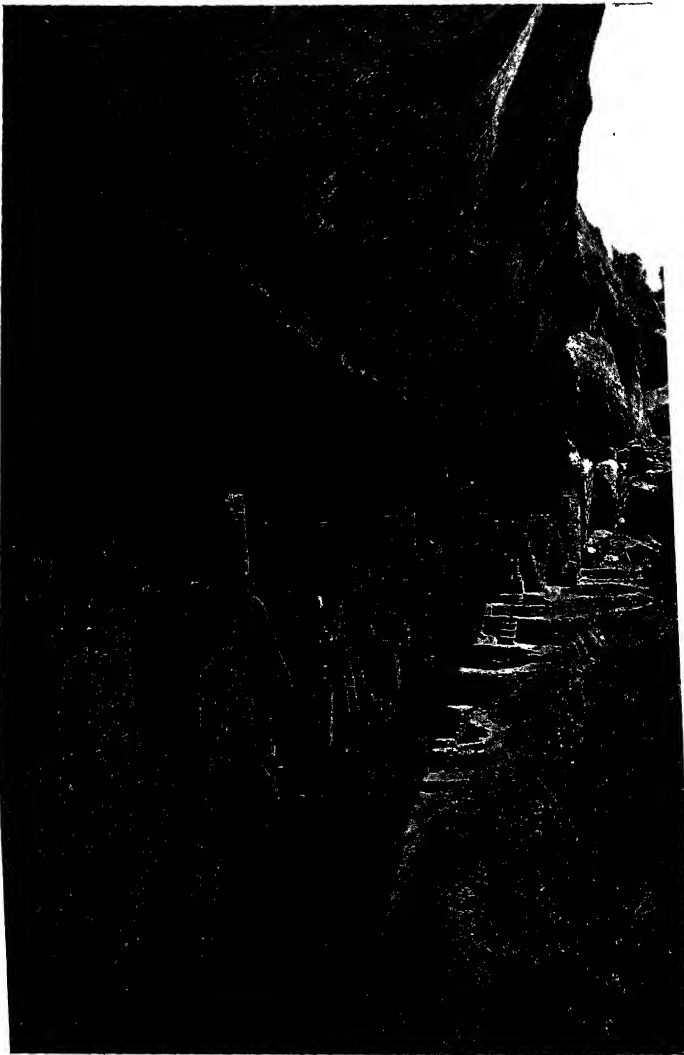


Photo by George L. Bean

Cliff Palace, Mesa Verde National Park

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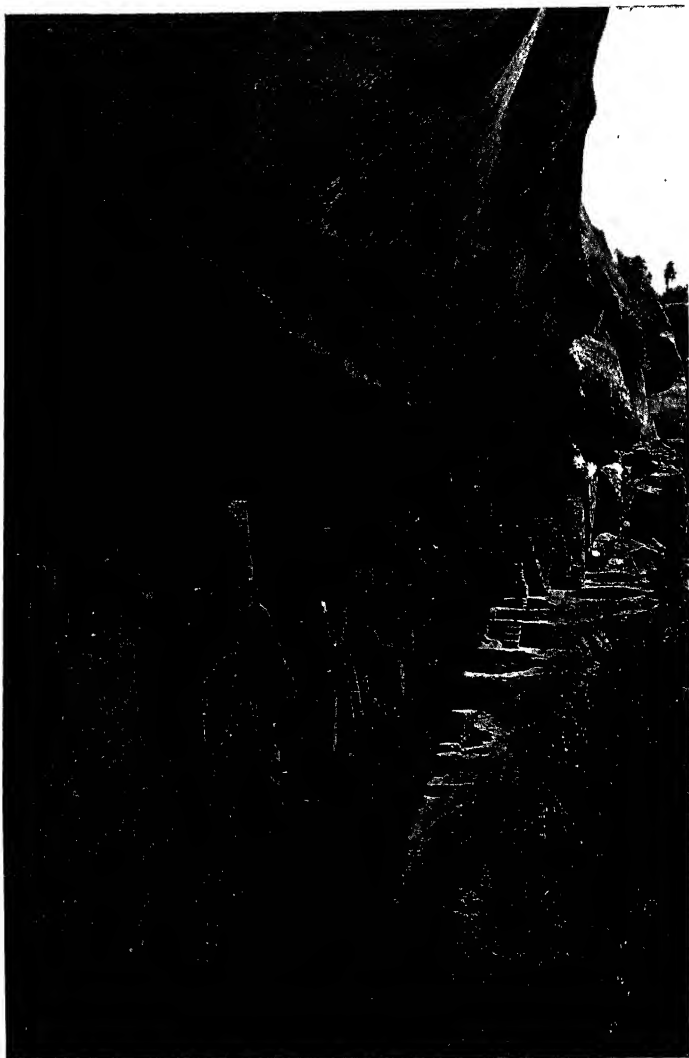


Photo by George L. Beam

Cliff Palace, Mesa Verde National Park

while their elders with bee-like activity were intensely busy obtaining and preparing food and clothing, making utensils and implements, and remodeling or enlarging their constantly crowded homes. A few of them kneeled at the battery of washboard-like meal-grinding rocks in the mill-room of the palace. The first metate or grinder in the series is of coarse-grained stone, and each succeeding stone is of finer texture for making finer meal. Each stone has corresponding receptacles, and all are inclosed in bins of rock-slab walls, as originally left.

The Ranger then summoned in fancy an ancient Town Crier who mounted each morning to the top of the Speaker Chief's house tower and announced the news and activities of the day.

Rustic ladders lead down through hatchways into the darkened interiors of the kivas. These cistern-like ceremonial rooms are of high-class masonry, with buttresses, inner walls, recesses, fireplaces and deflectors, wall pegs, storage niches, plastered floors, and other features, similar to all San Juan area kivas. This similarity extends through the unmarked generations of kiva builders, even to the present-day kivas of the Hopi Indians, from whom the name is derived and who by reason of this kiva sameness are presumed to be descendants of the early cliff dwellers, according to the Ranger's narrative.

The central point of interest in the kiva is the sipapu (a Hopi name) which is a shallow, insignificant looking, but neatly formed, opening in the kiva floor. Through this aperture the priests

communicated with their dead and especially with the gods of the underworld, possibly a mother god, since in their general belief the sun is the father of all and the earth the mother which brings forth all good. A few of the kivas are partly painted in red and yellow inside, but most of them are blackened with smoke from their primitive fireplaces.

Sun Temple is conspicuously located on the promontory point between Cliff Palace Canyon and Fewkes Canyon, opposite Cliff Palace. Only ten years ago this was an insignificant mound of drifted sand and debris, we were told; but today, excavated and repaired, it presents some of the best masonry, and walls of the most mysterious form, found in the park.

It is believed to have been the place the aborigines performed their significant ceremonial dramas. The temple is D-shaped, sixty-four by one hundred and thirty-two feet inside dimensions, with many thick partition walls ranging from six to twelve feet high. The outer wall has no opening, the whole structure being a completed unit. Ethnologists have concluded that the sun was worshipped here. This inference is based on the discovery of a conspicuous cornerstone in the outer wall bearing the image of the sun several inches in diameter.

Probably the least antique feature about Sun Temple, save the cement covering on the tops of the walls and the quips the visitors let fall about the antelucans, is the stump of a cedar tree which the repairing workmen sawed off. The roots of this tree were found growing on an interior wall;

when the roots were bared the tree died. As the excavating did not extend below the floor, the tree obviously was not contemporaneous with the human occupancy of the temple.

Three hundred and sixty birthday rings of growth were counted in the stump, and a saplinghood of forty years was estimated for a hollow center where the rings had disappeared. Thus, four hundred years before the ruin was restored, or in the year 1515 to be exact, this cedar seedling took up its abode in the temple wall. This may have been on the Friday following the departure of the temple custodian, or it may have been a half century afterward. The ethnologist thus chases a chimera when he tries to ascertain the exact date the aborigines checked out, though this stump gives some very significant and valuable data, and it is the only definite measure of the lapse of time discovered in the Mesa Verde ruins.

In Fewkes Canyon, just over the ledge from Sun Temple, are Fire Temple and a number of other splendid masonry structures, some of them highly colored. These are, however, practically inaccessible to latter-day cliff scalers, though they are visible in fine perspective from the far side of Fewkes Canyon. One marvels at the complete isolation and seclusion secured for these structures which are yet so near at hand.

The new Fire Temple, according to gleanings of lore from Pueblo and Hopi Indians, was a sacred place where the new sacred fire was kindled with great ceremony. Fire priests who could make sacred fire with sticks and friction were

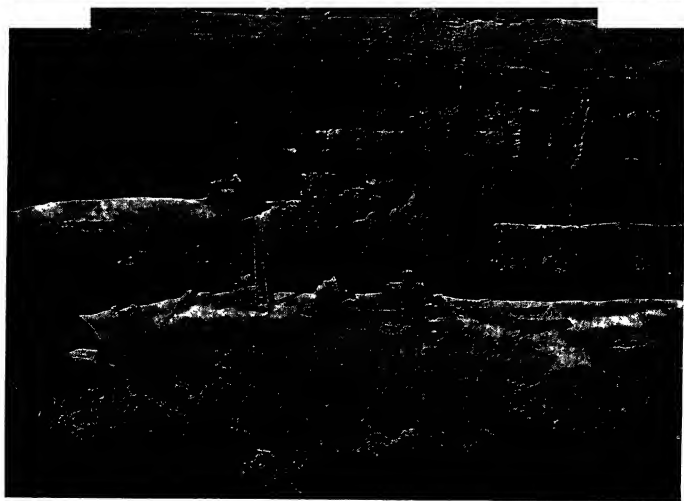
"magic" and maintained a secret order among themselves. If a private family wanted fire, they dickered for it.

Since fire was born, took nourishment, grew, and then died, it was supposed to have life, or to be life, coming from nowhere and returning to the same place. Consequently it was worshipped. You were a faithful and devout worshipper if the fire you got never went out; the prosperity and perpetuity of your clan endured as long as your fire. If you moved elsewhere you took your fire along, just as you did your pet eagles, turkeys and personal belongings, if you were a cliff dweller.

In the recent excavations of Fire Temple a few very securely inclosed compartments were opened, in one of which were disclosed some bread-making stones in position over a fireplace. These are reminiscent of the burials at Pompeii by lava from Mount Vesuvius, A. D. 79, possibly a concurrent event. One of the bread stones contained a sizable hunk of bread, but it was too stale even for Cliff Dwellers' turkey stuffing.

Fire Temple House, nearby, the home of the Fire Clan people, appears in two parts, one above the other, with a connecting ladder and toe holds nicked in the cliff wall, though there is much unused space on each shelf. This was the home of the fire priests.

Sun Point, opposite Sun Temple, started out on the maps as Inspiration Point, but since all the parks had Inspiration Points, the Mesa Verde christening party did an original thing: We liked



Tree Stump, Indicating Age of Sun Temple; and Fire Temple House,
Mesa Verde National Park

both the point and its name, for from here Sun Temple, Cliff Palace, Oak Tree House, Willow Tree House, Fire Temple, Fire Temple House and Sunset House ruins are visible, as well as a fine prospect of the tree-draped canyon. It is to Mesa Verde what the Statue of Liberty is to New York harbor as a viewpoint, and one peers expectantly into the clean and orderly ruins and over the canyon bottoms for the sight of a moving, human form.

The guide next led us westward a pleasant half mile to Square Tower House in Navajo Canyon. We descended by means of a few nicks pecked into the rock wall to fit prehistoric feet; and then passed through "The Eye of the Needle," alias Fat Man's Misery. The Misery is a narrow crack between the main wall and a huge slab that has loosened. It took some of the suspender buttons off before we polished the entire hundred feet through; and a plump but delighted Miss in the party declared it the best reducing agent she had used.

Square Tower community house is gathered in a corner of the canyon wall, against a vertical back wall, instead of in a deep cave. The Square Tower itself is a very fine piece of masonry four stories in height, and all the buildings in this ruin extend well beyond the shallow, sheltering overhang. Obviously the Mesa had become so crowded there were no more caves available. One of the kivas here is unusually instructive, containing its original roof covering of bast and willow wattles, supported by pole rafters.

"The Crow's Nest" consists of four small, oddly shaped cubbyholes located some forty feet up in a corner of the cliff wall. If these were eagles' cages, as has been surmised, the name Crow's Nest is a misnomer. The Ranger thought the food found stored in them was for use in case of attack by foes. Reached by means of climbing poles, which could be removed, the Crow's Nest was a fine place to deposit the prehistoric kiddies after supper while the parents made an evening call; mother would know just where to find them on her return.

It is two and one-half miles through the omnipresent cedars back to Spruce Tree House, which is half hidden just over the ledge from the park administration buildings and the park museum. Tall trees decorate the picture as viewed from the rim and lessen the apparent spread of the structure but greatly increase its attractiveness as a community home. This ruin, which is nearly as large and grand as Cliff Palace, contained a population of about four hundred at one time, probably the real "Four Hundred" of Cliff Dweller society.

Though it was probably occupied contemporaneously with Cliff Palace, Balcony House and Far View, some of the masonry, floors, and wall plastering are in about as good condition as when vacated, say along about 1300 A. D. A stone slab door appears in place, swinging on its original osier or willow hinges as in ancient days. Many of the stone thresholds show much wear, indicating a long occupancy. The Ranger directed atten-

tion to a lofty, circular room, with a few small orifices above, probably for observing the sunset and timing the sacred ceremonies, or for some other element of sun worship. The only means of entering the tower is from the top, probably by poles, long gone. The final thrill on the tour was in returning from Spruce Tree House to the rim on a sixty-foot ladder, as Cliff Dwellers used to do.

The guides do not accept tips; they wear Uncle Sam's uniform and render a fitting service free, but so thankful have visitors been for this entertainment that a splendid museum building and a large collection of Mesa Verde antiquities have appeared and grown to magnificent proportions. Donations running into the tens of thousands of dollars have been placed at the disposal of the park service for use in uncovering and displaying historic relics and treasures in the park.

At the evening campfire meeting Park Superintendent Nusbaum and Mrs. Nusbaum, both distinguished and enthusiastic archæologists, made captivating talks. They opened the doors to the past as wide as it has been possible to force them, and allowed the prehistorics, a race of about the stature of the Japanese, to emerge and parade before us within that delightful firelit circle.

Mrs. Nusbaum's brief talk was devoted to interesting episodes in the story of the seven cities of Cibola, conspicuous in the traditions and literature of the storied Southwest. Mr. Nusbaum assisted, more than twenty years ago, in laying out the Mesa Verde National Park boundaries and

has grown up with the Mesa Verde in the public esteem.

The darkness beyond the circle of illumined campfire faces gave a good setting for his story of the Basket Makers, a race which lived beneath this starry, black sky when the Wise Men of Bible times followed the Star of the East. Indeed, some authorities time them a thousand years before Christ. Only the baskets they made have been uncovered to authenticate this era. The post Basket Maker culture consists of ruined cliff huts, basketry, and the earliest known pottery, hardened and tempered by burning away the cedar bark that was pressed into the wet clay forms.

A third period in the quickly told history, so far as it is known, was the pre-pueblo age of Mesa dwellers. Their homes were circular, sunken huts, something like the present-day Navajo hogans, with low, plastered walls of masonry and roofs of logs, thatched and plastered with mud. The fourth and last known culture that dominated the Mesa Verde was the pueblo and cliff dwellers, the ruins and art of which are so conspicuous on the Mesa today. The unobserved and unmentioned fifth, sixth and seventh ages gratuitously assigned to prehistoric man, may connect the generations directly up with the Pueblo, Hopi and other present-day Indians of the arid Southwest.

There are legends among the present-day Indians of a great conflict, a decisive conquest, and a memorable migration; but there are also evidences that the cliff homes were not devastated or destroyed, rather indicating that they were

peacefully and decorously vacated. The modern ethnological presumption is that the people sought more spacious areas where the increasing population could the easier and more certainly gain a livelihood from livestock and agricultural pursuits.

In its palmy days this lofty land of legend was the metropolis of the inhabited regions of the old Southwest, forming not only the most densely populated section, but presenting the highest state of civilization of the time. So today, while there are important ruins of prehistoric people accessible to the tourist elsewhere, those on the Mesa Verde are by far the finest, most extensive, and of the greatest variety in existence.

The Mesa Verde is a pleasing, colorful landscape with a superb summer climate. Its fascinating centers of archæological interest are to America what the Egyptian tombs and pyramids are to the Old World. A book may inspire and a play may stir, but no panorama of life can awaken and command the interest and the sentiments of the reviewer like the parade of the prehistoric people at Mesa Verde. Visitors are thrilled with Yellowstone's geysers, enraptured by Bryce's rich beauty, uplifted by Zion Park's pastels, and awed by the immensity of the Grand Canyon, but probably no scenic spectacle in the vast repertoire of the national park system calls forth such intellectual and contemplative interest as the Mesa Verde.

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CHAPTER XII

MAPLE CANYON AND THE SAND PILLARS

THE Temple of the Sand Pillars nestles in an alcove at the roadside 4.5 miles on the odometer east of Nephi, Utah. The eastbound traveler must shut off the gas near the junction of the road "To Nephi City Park." There he will glance bravely backward over his left shoulder, baring his most vulnerable attitude toward the storied past.

Across a spacious courtyard, between the rounded arms of the inclosing hills, stands a little forest of rock-like boles and steeples against the rising form of Mount Nebo. It is the Temple of the Sand Pillars, its corridors and chambers filled with scenic interest, and populated with a legion of living figures of fascinating Indian lore. To go among them is to be carried back on the wings of a fairy fleet of folklore; and the subdued sough of the breeze among the tops aids in fixing the mythological environs.

Maple Canyon is a neighboring notch in the Sanpitch Range, near Moroni, the canyon also figuring conspicuously in lurid Indian lore. Its secret Box Canyon was known only to the favored few. This is a strange chamber in the conglomerate from five hundred to seven hundred feet deep, a half mile long and only a few feet in

width. Its gloomy walls bulge and overhang austere and are peopled with such fabled forms as the occasion may conjure forth.

To witness the parade of prehistoric people in their phantom action in these now familiar places we must retrogress for a better perspective, like the photographer who desires the picture to show the entire group. The Indian legend of the haunted Sand Temple was so vivid among the Redmen, according to the late George B. Hobbs, Mormon frontiersman and interpreter, that none was ever known to enter or approach the ghostly place. They shunned it superstitiously because of the actual presence of the apathetic creatures believed to inhabit its chambers.

Many snows before the white man came to the Sanpete to stay, two Indian tribes were established in the valley. One was a strong, overbearing group under Chief Walk-Over-Mountains, many of whose warriors had grown wealthy at such occupations as horse stealing. The other tribe, under Chief Antelope Heart, observed all the traditions and dictations of the Great Spirit, however made manifest.

We-gar-o-has, a most worthy hunter, the only son of Antelope Heart, fell helplessly in love with Valley Flower, the lovely daughter of Chief Walk-Over-Mountains. But at least a dozen young men of her own tribe had valuable strings of horses with which to purchase the maiden.

It happened that Sivapthe, the principal suitor for Valley Flower in her own tribe, possessed a large herd of ponies, which, however, were small,

while the few owned by Antelope Heart and Prince We-gar-o-has were very choice animals and had already been objects of envy for Walk-Over-Mountains—that is, he had hoped to steal them some day.

Through the aid of relatives, We-gar-o-has was enabled one day to picket five fine horses before Walk-Over-Mountains' lodge, and ere he reached his own lodge he had the great pleasure of seeing one of the Chieftain's squaws leading the animals away, indicating an acceptance of his offer.

Sivapthe was enraged, and with the support of a number of allies he swore vengeance. They viciously announced their determination to enforce the general law among aborigines, namely, that no wedding is an accomplished fact until the sun has gone and come again to the position in the sky where it saw the wedding.

Entirely satisfied, Chief Walk-Over-Mountains directed the young couple to take his fleetest steeds and flee through Salt Creek to the Juab tribes for the night. And fly they did, only to notice that they had been discovered and were in great danger of being intercepted. In quick determination they turned aside, racing up a broad slope and into Maple Canyon's friendly embrace. Finding a secret passage open to them through the great north wall, they were soon secure in a magic chamber.

Meanwhile the pursuing bands stormed onward up Maple Canyon, overlooking the lovers' hiding place, but searching among the grotesque figures

in the amphitheatre at the head of the canyon, and peering into the niches about the natural bridge. The fugitive young couple then slipped out of the wonderful Box Canyon and sped northward into Salt Creek Canyon. They halted to recuperate their mounts at the forks of the canyon but were there overtaken by the band of warriors headed by Sivapthe.

The unfortunate couple had barely time to scramble up the face of the mountain to the northwest, the enemy in hot pursuit. Soon, however, fatigue and the vicious arrows of Sivapthe sent poor Valley Flower down upon the steep and insecure slope. She lay in a position where the gallant We-gar-o-has only invited a storm of deadly arrows when he sought to rescue her.

The sky was darkened by the thunder god as this monstrous bird spread its lowering wings above the mountain, and its piercing screams of thunder and the vicious lightning flashes from its eyes terminated the battle of the Indians. Under cover of the broad, downy breast of clouds, the weird demons believed to control the mountain sheep sent these frightened creatures helter skelter from crag to crag, and filled the aching heart of We-gar-o-has with deep foreboding.

Then came the rain, the pouring rain, which soaked and drenched the landscape and so darkened the place that the frantic We-gar-o-has ran hither and thither with only the lightning flashes to guide him, in quest of his beloved Valley Flower. Night settled down with the brooding storm, and the dismal rain finally slackened, only to reveal

the moanings of wandering spirits in the darkness.

Nowhere could the anxious lover find his sweetheart. Suddenly, hearing a whispered call from above, he looked upward and there on the face of the sky was a lone, white star smiling through the breaking clouds. He clutched his bosom as he sank despairingly to earth, for in the star he recognized the spirit of his departed bride.

Bestowing upon the forlorn lover the gift of sleep, the star bride hovered near to guard the slumberer until morning and the coming of the gloom-dispelling sun. On awakening, We-gar-o-has saw before him and below him at the foot of the slope a congregation of standing forms left by the storm. They were still moaning in doleful cadences, and We-gar-o-has saw in the lifeless figures the forms of his heartless pursuers of the hideous night before. The thunder god had stricken them rigid as the new star began the journey to its place in the sky.

Wending his way gloomily around the cluster of repulsive, rigid figures, We-gar-o-has was startled at the sight of Valley Flower standing on the slope before him. She was beautiful beyond description, and the sight of her face made his heart leap for joy, though her rich attire and decorations were of a sort he had never beheld before.

As he ran toward her, she raised her hand and bade him stay! But pleading earnestly with her for permission, he pressed nearer, only to see her withdraw to maintain the distance between them. Then she pointed meaningly toward the riding horses grazing nearby. Quickened at the prospect

of carrying her away at last, the youth gathered the horses and turned, only to find the space vacant where his loved one had stood.

In the full realization of the truth, at last, his own body sank lifeless upon the slope. That night two twinkling, white stars shone out from the sky, their rays, like outstretched arms, clasping each other in joyous affection. And each night since then the figures of the pursuing horde, shuddering and moaning in the wind, have haunted the rain-born Temple of the Sand Pillars.

CHAPTER XIII

FISH LAKE AND THE WAYNE WONDERLAND

WE learned from experience that the novice who goes to Fish Lake to while away the vacation days in a rejuvenating climate, is apt, in the alchemy of the sportive environment, to become an ardent fisherman over night. The pleasing forests and mountain summits around this crater crystal were so alluring it was with reluctance my wife and I permitted Charlie Skougaard to push the boat from the gravel shore and toss a fishing tackle into our laps. We had not escaped the gossip of the big fish catches, however, and the lure of the sport crept over us unnoticed and uninvited.

The lake bottom drops out of sight rather abruptly toward the big fish waters, and faint hearts kept us near the shore. We had no immediate desire to see three hundred feet of fish line dangling vertically from the side of the boat in quest of bottom. Thus our affections were temporarily alienated by the wilderness woodlands along the steep shores.

As we drifted abreast a clearing there appeared just ahead of us an aristocratic buck deer. He was standing, statue-like, on the high dike or ridge of earth which surrounds the lake (pushed there by the expanding ice of many winters). Even while

we contemplated the picture, a beautiful doe joined him to fill out the picture panel. After some meditation, they both covered the two rods of gravel beach to the water's edge and drank as quietly as calves, though within a few rods of our boat. They then returned leisurely to the dike and disappeared among the quaking aspens, making us feel that we were a part of this primitive realm.

Beneath us the submarine gardens were an especial delight, equalling in some respects the natural aquariums of salt water shores. Great fields of cold water kelp appear, the plants forming submarine trees standing on the white, sandy bottom, clearly visible at from twenty to forty feet depth. These graceful picture forests of big-leaf kelp are abundantly populated with marine life. Bugs, insects, eels, water dogs, turtles and fish are at home in their native habitat and are of fascinating interest.

The supreme thrill, however, was to glide over an immense school of bluish-backed trout, each fish from fifteen to twenty inches in length. The fish stories, and the fish themselves in this manner, got in their subtle work; and as the submarine gardens began to fade in the increasing depths, I began to sort over the fishing tackle. Laying out the line was a plain, matter-of-fact process, devoid of any skill or of any feeling above a slumbering urge to make the attempt. I adjusted the pole crosswise in my lap, according to instructions, while the oarswife pulled gently into the ripples at the bow to start the spinner.

Now this is not a big fish story, but a brief tale of the surprising discovery of a bona fide fisherman, where even the fisherman did not suspect one existed. It was a sleepy afternoon on the lake, and the observant oarswoman had cautioned that the rod might be lost overboard in my drowsiness.

Suddenly I was startled as if I had grasped a high-tension electric wire. A seven-pound mackinaw had all but jerked the pole from my hands as a salutation. He then yanked the long line sidewise several rods, making it whirr as it cut the water. Next the big fellow whipped around in the opposite direction far enough to swing the boat, and my wife eased the pull by a deft dip of an oar, and quickened the excitement by a wild scream of delight. But before I had time to gather my scattered wits together, much less to gain command of the pole, line, or reel, Mr. Trout dived straight toward the center of the earth, making the braided copper wire sing for joy.

After every lunge like this he made a shot directly towards the boat, either in an effort to spit out the hook or, for all I knew, in a mad desire to attack his tormentor. But the luckless fellow was deeply impaled, and by the wife's skillful handling of the landing net, he was finally pulled aboard, after he was dog-tired and limp, after I had reached the verge of collapse, and after my wife's vociferous enthusiasm had attracted the attention of the lake guards.

Moral: The man or woman who does not manifest some degree of excitement when an eighteen-inch trout tries to eat the spinner and carry the



PHOTOS: ABOVE, BY ALBERT WILKES; LOWER RIGHT, BY DR. J. E. BROADDUS
 Fish Lake, Utah. *Below:* The Box, Maple Canyon; and Hickman Natural
 Bridge, the Wayne Wonderland

pole away as a souvenir, is past the need of a vacation.

The Fish Lake country is the vestibule to the Wayne Wonderland. The lake drainage passes down the Fremont or Dirty Devil River, the erosions of which have carved the Wonderland out of the red, yellow, pink and white rocks.

"No, not a trout stream, but a dirty devil," said William H. Dunn to another member of the J. W. Powell party on the original expedition down the Colorado River in 1869. And Dirty Devil the stream went into the records, and on the maps, to remain until a later generation sought to rechristen it Fremont. The stream is in fact a dirty devil yet today, for the erosion process in the yielding sandstones still continues eternally to damn and contaminate a stream which at heart and by birth (in Fish Lake) is as pure as the pure.

Down, down, down we coasted on the roadway from the Fish Lake bowl; and milder, warmer and hotter grew the summer atmosphere. It was as if we were approaching the domicile of a devil sure enough, though this was probably only in contrast with the crisp morning at Fish Lake. Loa, the first settlement on the road, is the highest town in Wayne county. The lowest point is on the river near Hite, indicating a region of contrasts and surprises.

Lyman ward, to use a Mormon designation, cuts its hay and tends its flocks across the valley from Loa, while Thurber is only a scar down on the Bicknell duck-shooting bottoms. A philan-

thropic visitor, Thomas E. Bicknell, advised the removal of the populace from Thurber to higher ground, we were told, and he presented the new village with a library to further elevate the people's vision; hence the recent metamorphosis and the new name, Bicknell.

Teasdale, over toward the distant south wall, though by no means a fossilized settlement, rises out of a forlorn and fallen forest of petrified trees. At any rate, any boy scout or cow puncher can direct or conduct the visitor to a number of petrified forest remains, so a school girl assured us as she pointed out the trail.

But gravity drew us farther and deeper into the canyon wonderland. Fiery red hills laid down in burnt reds and lighter strata; velvet palisades, layer-cake tablelands, acres of burnt potato pebbles, houses of parliament, crocodiles, battleships, ribbon cliffs, cedar-clad pincushion domes, arches, niches, sawtooth ridges like the bodies of half-buried stegosaurus, skulls, and what not, moved in steady review as the automobile coasted along.

The serpentine roadway, which remains about where the settlers found it when they first moved the loose rocks, accommodately tries out all the approaches and angles of the views before actually passing beyond any particular feature. Higher grew the cliffs, chimneys and walls, and deeper and narrower became the gulleys, ravines and the canyon in general, as the odometer tally climbed.

Occasionally the dust-painted automobile nodded familiarly with the little dirty devil of a

stream and then crossed it in primitive style. Indeed, the road used the same bed as the stream in a friendly way for a few rods in places, but as often this most pliable of roads skimmed an unbroken table rock, roughened only by the ripple marks of some ancient seashore.

Torrey settlement is among the cedars, transplanted pines and fruit trees, its youth getting its rudiments in a log schoolhouse such as our grandfathers used. A ~~pathetic~~ cemetery in the shales marks the passing, on this same road, of Father Time, and of a procession moving into a still greater wonderland.

Fruita, appropriately named, is an orchard on the sand by the stream, whose several families dwell within the shelter of the lofty rocks of ages. Across the stream against a six-hundred-foot vertical wall of smooth stone we shut off the ignition at Natural Bridge Tourist Inn.

A few miles farther down the canyon appears a high, bright, white dome which gives the canyon its name, Capitol Gorge. The gorge is seven miles long and in places so narrow the sun does not eavesdrop, and even the stream must be compressed to get through.

At the Inn we exchanged the upholstered cushions for broncho leather and clipped off two or three miles more over the rocks in and out of the stream bed towards the shining dome. On the way the colossal walls tired our necks, and here and there some extraordinary petroglyphs adorning the walls invoked contemplation. The canyon was occupied long before the Mormons came; and

a theory is that the cliff dwellers sought the canyon country to elude a pursuing foe.

Some exceptional discoveries of artifacts have recently been made hereabouts, including pottery, basketry, garments, spears and some leather warrior's shields for the arm; also a very remarkable stone work-bench of the prehistoric people has meal grinding depressions, tool sharpening surfaces, and grooves in which many arrowheads and spearpoints have obviously been whetted. All the marks are as fresh as if made and left but recently, though there are few cliff dwellings to denote the permanent abode of a numerous people.

The trail soon leads out of the canyon to the northward, into a labyrinth of slick rocks, standing rocks, skyscraping rocks; brilliant, gorgeous, dazzling rocks; dangerous rocks, fascinating rocks; grotesque, burlesque, whimsical rocks, as weird as the paths of the winds and waters which shaped them. From vantage points the rough country within the view staggers away in confusion and abandon, crossable only by those who ride the clouds, and penetrated only by the strong and the bold.

The Hickman Natural Bridge is the largest and most graceful among the bridge forms in this wonderland. Rising ninety-two feet in the clear, its sturdy arch, twenty-five feet thick, accurately spans a gorge one hundred and thirty-five feet in width between the abutments. Not a line, face or surface is awry, except a few superfluous bumps on its roadway remain to mar its actual useful-

ness; and its south approach is gone. It is oriented toward the wilderness of upstanding rocks, and it rises out of the edge of the jungle itself like a wide-striding beast; nevertheless, it is carrying an increasing stream of tourists into the Wonderland of Wayne.

CHAPTER XIV

BEAUTIFUL BRYCE

A THUNDERSHOWER preceded us eastward from Panguitch into Red Canyon, and the moving rain portieres pendant from a brilliant rainbow, aided by shafts from the evening sun, accentuated the terraced pots of gold strewn under the receding foot of the rainbow. Red Canyon had toned up afresh, as rich as new blood after the shower, and the templed forms and talus tresses along the roadway, veiled in a flow of Turkish firé, even outshone the sun-illuminated spruces and pines.

Thus we did not wonder that Bryce-bound tourists are said to have explored Red Canyon on the way (though twelve miles distant) and turned back with the belief that they had seen the inimitable Bryce. The splendid government roadway fits the scenery as does the rainbow, sending its graceful lines through jutting red walls in tunnels and doorways that appreciably enhance the scenery.

Just as we sighted the first needle's eye through which the road is threaded, we picked up from the driver a lurid episode from the days of banditry when Red Canyon was the rendezvous of railway express robbers. An oval rock, a hundred feet south of the road, once carried the sunset



Photo by Harry Shipler

Principal Erosion Amphitheatre, Bryce Canyon, Utah

where we were photographing, and gazed in wonder at the apparently extravagant expenditure for photographs of a mere nook in his summer horse pasture.

"No, sir; I have never paid much attention to it," he frankly confessed. "It is pretty common to us folks. I've trailed stock through the 'dump' ever since I could ride a horse. They call it Bryce's Canyon because Bill Bryce ran stock up here before the Government took the pasture over. It is a rough country for critters off the trail, and a hell of a place to lose a cow!"

To gain an appropriate perspective for the pictured Bryce we must journey many centuries back in thought with the geologist to Mesozoic times. Our youthful Mother Earth is said to have been seized about that time with violent growing pains in her dexter base side. For some eons thereafter she experienced an appreciable rising of the epidermis over about fifteen thousand square miles of the present Grand Canyon country of Utah and Arizona. Thus a perfectly beautiful Eocene lake of large dimensions was finally lifted up and spilled into the Pacific Ocean by way of the Colorado River. Its passing overland made a laparotomy incision a mile deep, now known as the Grand Canyon of Arizona. With the lake and following it for some centuries of drainage went from adjoining parts of Utah, Colorado, New Mexico and Arizona some ten thousand feet in thickness of Mother Earth's Cretaceous and Jurassic cuticle, an enormous load to pass from even a stone abdomen.



Specimens of Temples and Statuary in Bryce Canyon, Utah

Photos by Albert Wilkes

The northern limit of this tremendous denudation is plainly marked in the Vermilion cliff country of the Utah-Arizona boundary region and extending northeastward in Utah as the rim of the Great Basin. In this lofty terraced cliff line the geological strata, like veneering on the earth's surface, have been continually torn, broken and peeled away by the elements, and still expose their bare and bleeding edges. The freshest and raggedest of these wounds has been bandaged in obscurity through all these convalescent ages at Bryce, under the eaves of the picturesque Paunsagunt Plateau at our feet.

Here we found a secluded Mecca, and in sincere devotion we paused to worship at the shrine of Bryce. It is indeed a new temple of the gods, whose synagogues, holy of holies, sepulchres, thrones, courts and avenues covering an area one by three miles in size are distributed over our immediate foreground. Pink Cliffs it is designated by the geographer, Paunsagunt Fault by the seismologist, Cretaceous and Jurassic strata by the geologist, and Miocene and Eocene ages by the paleontologist. But to us no appellation seemed permanently appropriate; it would not stay named or described, for it was extremely kaleidoscopic in color and apparent forms.

The sinuous, abrupt rim wall drops off some thirty feet to a broad, soft, slow-creeping talus apron through which rises a field of obelisks, pilasters, pillars, towers, kiosks, entablatures and other architectural features in great variety and variegation.

On a partly cloudy day the colors do not stay named more than a few minutes, the native brown, ochre, pink or gray of the vast mass of marl becoming bronze, yellow, white, salmon, orange, rose and red under the changing light like the desert chameleon; and because of the high albedo or light-reflecting power of the surfaces, illuminating from unseen sources the otherwise shaded sides of adjacent figures, a weird translucency results, in which we would see a column or wall begin to brighten, glow, turn red hot and then apparently cool off again in the cloud shadow before our faces were turned.

Figures in the line of reflected light cast ghostly shadows into the livid translucency of pillars and walls; and the direct rays of the sun opposite were seen at times to gild the edge of a round column in pure gold. Giant vertical fingers of red amidst the pigmy-like pines would suddenly become monster upstanding bananas or marshmallows in the light, and shaded groups of statuary would become living models of exquisite beauty as a spot-like ray through the clouds emphasized the tableaux on this stage of strange pantomime.

The graceful, tufted yellow pines, the brilliant reddish evergreen manzanita, the creeping kinnikinnick, and the bashful squirrel-tail pines, all standing about on the soft talus slopes and in the bottoms, made fine contrast with the yellow, ochre or gray background as seen from above, the trees becoming the daintiest and rarest of filigree.

Here we saw a candy kitchen of creamy cones, marshmallow fingers, translucent jellies and paste-

like pinnacles, and there an art group of roughly finished statuary. Cloaked nuns stand silent in white groups amidst the bronze busts of famous men. Entire families pose in respectful attitude about the statues of departed ones, and even the dissolving talus creeps in respectful silence downward from such as these, with no loose or bounding rocks to break in upon the vespers or to damage the figures.

Here and there a tall khaki-clad sentinel boldly rises above all the rest in austere watchfulness; and scattered about are the lifelike busts of Washington, Lincoln, Brigham Young, Queen Victoria, and others, depending upon the fertility of the imagination, the figures from other angles and in other lights having other shapes and other names.

Arches and peepholes appear beneath the architraves and in the thinner piers or walls high aloft as if to accommodate the standing figures which might wish to see but could not move from their pedestals; balanced globes like school-room conveniences, stand out against the sky when seen from below, and many rock-like capitals are poised in delicate balance, one upon another, three or more deep, from a hundred and fifty to two hundred and fifty feet above the shadowy depths or crevices, as if they had been left by Nature's workmen when in a mischievous mood.

In the better preserved portion of the largest amphitheatre, or possibly it is only the newer portion of this wonderful earth wound, large sets of stage scenery seem to have been carved out

and stored away in system and order, the stands converging from the circular rim outward into a central corè region where they meet, somewhat like the fibrous walls of an orange cut in half, though the avenues are open on the interior.

These sunless crevices are usually but a few feet in width, about two hundred to two hundred and fifty feet in depth, and from five hundred to seven hundred feet in length. The bottoms of the chasms are in perpetual twilight or total darkness; and the crests of the partitioning panels are too narrow and fragile for footmen—except for the bandit or sheriff types in motion pictures, some of whom have been pushed off these precarious places in effigy before the clicking of motion-picture cameras.

The morning and evening twilights awakened new life in the figures, and a moonlight night brought to us a rare delight. But the bright, mid-day sunshafts, alternating with sombre cloud shadows, conditions which we found very common, made Bryce's scenery most resourceful and kaleidoscopic. At those times the arena was filled with objects as active and interesting as if alive.

Thus it was too soon that the afternoon sun kissed the distant Wah Weap good afternoon and good evening, and after gilding the tops of Bryce's tallest spires, bade good night to all the beckoning forms in the field below us. Feminine figures that had looked up and smiled all day drooped in solemnity and slumber as the shadows came, while the child figure, rejoicing, if not romping, at its stalwart mother's side, touchingly



Photo by Dr. J. E. Bronckhus

Natural Sculpturing, Bryce Canyon, Utah

pantomimed "The Baby's Prayer at Twilight." The music that filled the day breezes across the glittering garden became the duller, dying notes of the night, and only the memory remained illuminated!

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CHAPTER XV

CEDAR BREAKS AND THE MARKAGUNT

A GAY train of huge red tourist busses bore us swiftly out of Cedar City, Utah, on the steep canyon climb to Cedar Breaks. At Ashdown Gorge, in response to a ringing chorus of "Open Sesame" calls, the rocky Markagunt wall reluctantly fissured, allowing our passage. Here the stream, roadway and forest are jostled together in a canyon whose walls come together above us like the lids of a book, the facing pages being illumined by trees on invisible footings.

Beyond the gorge the canyon apron becomes taut in the spread of the lap and the garment is figured with quaking aspens, firs, balsams and spruces. An artist in our car declared the extraordinary aspen specimens to have been done in glossy oil colors on the landscape canvas apron. But all the scenery hereabouts was readily forgotten when the car swerved southward along the rim of the Markagunt and the Zion Park country, twenty miles to the southward and one-half mile downward, was served up for early luncheon on the Kolob platter.

It is like a view from an airplane, though the automobile was yet somewhat below the ten-thousand-foot contour. The foreground tumbles headlong over the Markagunt edge, where a furry

landscape is presented far below and extending outward several miles. It is the Three Creeks saw-milling country, a densely forested area. A grizzled old timer in the party said he and several families squatted for a number of winters in a scar still visible in the smooth forest, though they were as isolated as were the Babes in the Wood.

We noticed a deep gash cleaving the forested platform, darting out from under the edge of our standpoint. This enormous crack is joined by another from the east, and as they extend still southward they are joined by many others, until they shiver into bits the farther edge of the forested platform below us, transforming it into a shimmering archipelago which we recognized to be Zion National Park.

"Looking southward from the brink of the Markagunt," wrote Clarence E. Dutton, Government geologist, when he visited this same viewpoint in 1880, "the eye is attracted to the features of a broad middle terrace upon its southwestern flank, named the Colob. It is a veritable wonderland. It lies beyond the Cretaceous belt and is far enough away to be obscure in its details, yet exciting curiosity.

"If we descend to it, we shall perceive numberless rock forms of nameless shapes, but often grotesque and ludicrous, starting up from the earth as isolated freaks of carving or standing in clusters and rows along the white walls of sandstone. They bear little likeness to anything we can think of, and yet they tease the imagination to find something whereunto they may be

likened. Yet the forms are in a certain sense very definite, and many of them look merry and farcical.

"The land here is full of comedy. It is a singular display of Nature's art, mingled with nonsense. It is well named the Colob, for the word has no ascertainable meaning, and yet it sounds as if it ought to have one." (Evidently Mr. Dutton had not read the Mormon "Pearl of Great Price," wherein the word was first used, spelled Kolob, to denote a place nearest the celestial or residence of God.)

The picture was soon absorbed and its story soon told. The chauffeurs honked together the scattered brood of co-ed botanists and the stolid scene gazers, and we were again on our way. Passing through an arboreal picture gallery to the spacious flat top of the Markagunt, we drew up at Cedar Breaks, forming its abruptly broken west rim wall. The Markagunt wears a tertiary tam-o'-shanter sixty or seventy square miles in extent, with Brian's Head looming directly ahead of us forming the button on top of the cap.

To interject: The Wasatch Range terminates in southern Utah in a high, broad plateau having precipitous boundaries and a covering of forests set with a few blue lakes. Around the brow of this great southerly headland is a royal geological tiara of brilliant hues, with crests and diadems of exceptional beauty.

Accurately speaking, it is a papal tiara of many tiers. The lowest appears as the Pink Cliffs in the Short Creek-Pipe Springs, Arizona, segment;

next in elevation is the Kolob at Zion Park, and next the Paunsagunt at Bryce on the east. The loftiest of these resplendent headlands is fitted on the massive Markagunt Plateau, with Cedar Breaks, facing west, as the principal diadem.

Cedar Breaks is a brilliant, crescent-shaped amphitheatre of two or three miles inside diameter, being an erosion half bowl whose rim, where we alighted from the busses, is ten thousand five hundred feet above the sea and whose bottom is from one to two thousand feet below us, all comprised within the view as compactly as the field within an athletic stadium.

Had there been a sputtering battery of Nature's original excavating machines still digging away in the depths, augmented by a busy swarm of masons, sculptors and painters fixing up the place, the group of rollicking flower pickers in our party could not have turned from the sparkling meadows and lined up more interestedly on the brink of the bowl, there to ejaculate their unfeigned surprise and admiration.

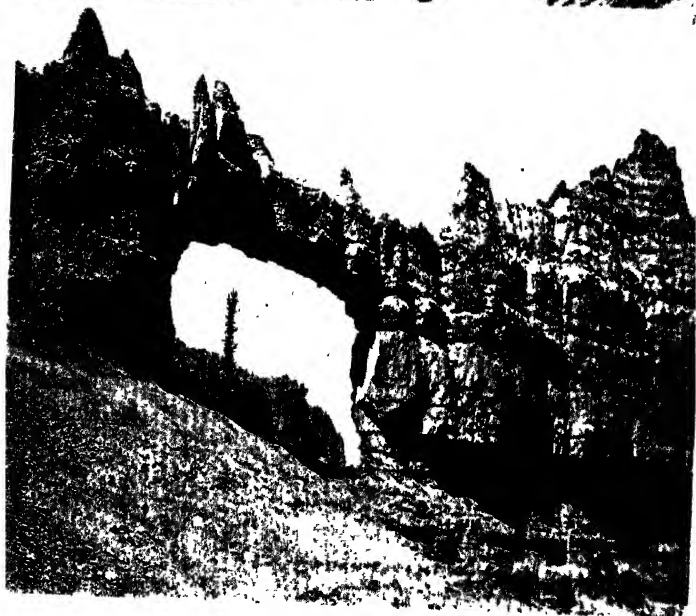
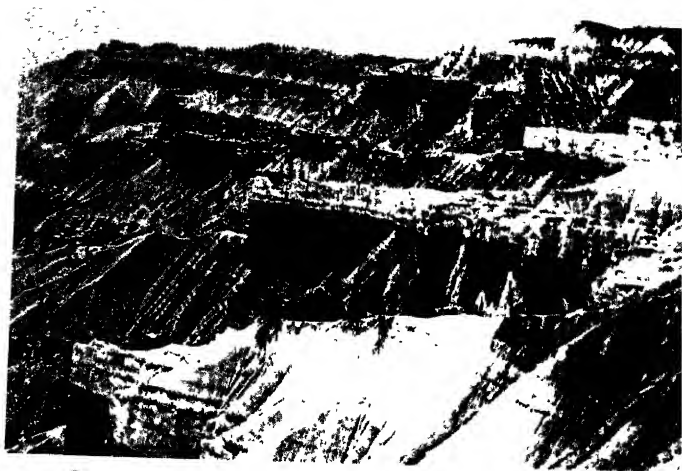
Like the proverbial blind men seeing the elephant, each visitor had a different story, saw a different form and a different color combination. One bevy of co-ed sketchers, some nineteen in number, roosted like partridge hens on a prostrate tree trunk while a proud partridge cock instructor pranced to and fro describing figures and colors for them like a master painter. Another perhaps less dignified gathering found it edifying to view the grotesque picture framed upside down be-

tween their own legs with their backs turned toward the abyss.

Peopling the bowl as at Bryce are the same standing groups of statuary, the same lone figures and the same elaborate architectural designs, on just such a loose talus marl of rich colors; only the Cedar Breaks bowl is larger and deeper and the figures less thickly sown. Cedar Breaks figures are also somewhat dwarfed in the perspective, as none of them lift their sculptured heads to the level of our line of sight from the rim. Several picturesque promontories thrust their slender, wedge-like noses far out into the colorful cauldron, exhibiting on their cheeks a riot of complexions.

This greatest of all pots of powdered paint was simmering under a subdued sky lighting when we arrived, as the sun was behind a cirrus veil. With notebook in hand I wrote down at the dictation of the visiting art instructor the colors he saw, reading in order from the higher elevations as follows: green, gray, salmon, purple, light gray, chalk, purple, white, pink, white, purple, red, dark red and white river sand in the bottom, though from other salients and in other lights the colors are somewhat different.

Descending part way into this extraordinary basin, an adventurous few of us were soon overshadowed by the lofty, level rim, and lost in a labyrinth of grotesque, gaily clothed statuary of great individual height and size; but the luncheon stop was too brief for extensive explorations. On returning to the rim at a new balcony we found



Photos by Albert Wilken
A Rim View; and an Erosion Figure, Cedar Breaks, Utah

that the color bands on the figures fairly sparkled in the full sunlight then flooding the bowl, and we envied the botanist co-eds who were to remain for a week.

CHAPTER XVI

ZION NATIONAL PARK

MY first view of Zion Canyon some years ago was from the top of the old dugway opposite Rockville, Utah, looking northward across the deep, narrow valley of the Virgin River directly into the inspiring canyon. Treacherous boulders in the steep road, rendered glossy and blue by the rubbing of heavy wagon tires, suggested the mythical way paved with good intentions rather than its counterpart leading to Zion. Consequently I was constructing a wagon drag to avoid being precipitated into perdition, when I sighted the thrilling scene, gilded and glistening in the cross rays of the sunset, and framed in the wagon bows as seen from the rear.

But seen under other circumstances, Zion's attributes are so singular and enduring they have always pleased, fulfilling in this measure at least the promises made for its biblical original. The canyon is formed by a magnificent palisade of sandstone pillars and front walls a half mile high, of rare beauty of form and great richness of color. The flat tops of the perpendicular pillars are largely capped with unique woodlands in cloud-land, like inaccessible Babylonian gardens in midair.

Viewed from that lofty southern perspective,

Zion's features were exalted by the evening sunlight into all the glory of a prophetic Zion. Each separate figure stood out in bold relief, and the horizontal rays of sunlight were flung at right angles toward us in varying shades and effects as if emitted from the redolent figures themselves.

During the midday hours the silent city has always seemed to droop under the effulgence of the sun. All its members then retreat into hidden alcoves in the great cradle, tucking their shadow garments close about them during the siesta.

The Mukuntuweap (Zion) forms a completed right angle with the Parunuweap, a sister canyon to the east on the main Virgin stream. Differing interpretations have been given for these quaint Indian names, such as the Home of the Birds, and the Home of Quick Waters, each significant and appropriate enough. However, Major J. W. Powell, who descended through the Grand Canyon of the Colorado safely, but later almost lost his life when climbing through the Parunuweap crevice, states that an Indian chieftain translated Mukuntuweap into "Straight Canyon" and Parunuweap into "Roaring Water Canyon." W. R. Palmer was more recently informed by leading Piute Indians that Mukuntuweap or, more phonetically written, Mukuntoweap means straight river, and that Zion Canyon was called I-u-goon, or I-oo-goon, meaning quiver—that is, a pocket-like canyon whose interior was shaped like the Indian's arrow receptacle, the quiver.

Major Powell also relates the Indian legend of the Rock Rovers, Zion being known to the Indians

as the Rock Rovers' land. According to the tradition, a great light was once sighted on one of the towers of the Virgin, which the Indians supposed had been kindled as a warning of the approach of their enemies, the Navajos, from beyond the Colorado River. But no human being could have mounted that pinnacle to start the fire, and it developed that mischievous tricksters called Rock Rovers lit the fire to deceive the Indians. Thus, as we discovered, the sun is still reflected from certain surfaces of these radiant figures.

An abiding fear is said to have filled the Indians, which kept them ever on their guard while within the Mukuntuweap during the daytime and impelled them to depart promptly at nightfall. Under no circumstances could the Mormon farmers induce an Indian to remain within the walls at night, it has been said.

This may have been due, as various traditions ascribe, to their belief that the region was the home of a supreme being who would be offended by their remaining over night; to the killing of a famous chieftain by lightning, presumably for having overstayed in the canyon; to the killing of a number of Indians who slipped from the precarious trails leading to the rimlands; or even to the Rock Rover tradition. But before the canyon road (now the Harding Highway) and the slender chain of farms were placed out of reach of the stream, a wholesome fear often stood even white men in good stead during the freshet season, for the floods from afternoon thundershowers and

from the daytime melting of the springtime snows on the plateau reach the canyon early in the night.

Smithsonian Butte, a massive stone replica of the old Smithsonian Institution in Washington, forms the east end of the Virgin valley, just outside the portals of Zion Park, and is conspicuously visible to the incoming visitor for several miles. The Parunuweap crevice shears off the north end of the Butte.

The lofty Temples of the Virgin stand like sentinels at the entrance to Zion Canyon, the West Temple being the most conspicuous figure in the park. Projecting far above the general plateau, it is visible in nearly all directions from fifty to ninety miles. Its elliptical shape, bulging sides and turreted top give it some of the lines of an immense ship, riding high; hence the local appellation, *Steamboat*, is hard to replace among the old residents of the region.

Red soils from aloft, washing over the rims in the rain, have streaked the delicately colored faces of some of Zion's walls, one bloody stain giving its figure the name *Altar of Sacrifice*. The altar is located just beyond the West Temple, being a part of the temple. Next to the altar is Dellenbaugh's Temple of *Æolus*.

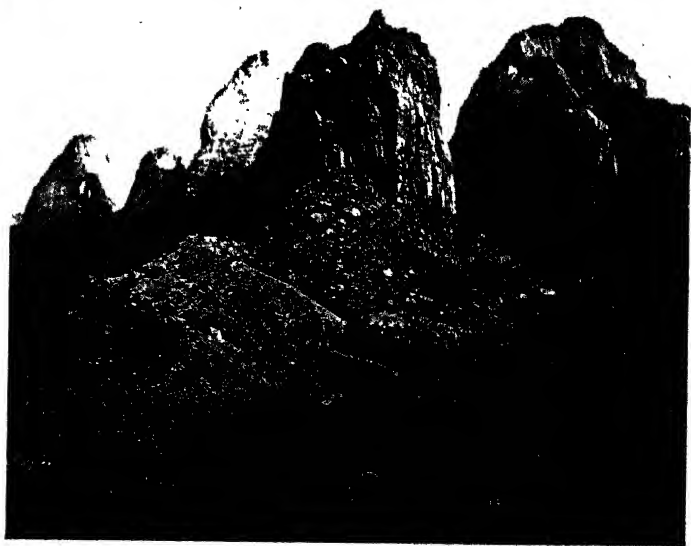
Across the canyon stands the Watchman, known for three generations as *Flanigan Peak*. Next to it, on the north, are *Natural Bridge Mountain*, the *Three Brothers*, and the *Mountain of the Sun*, standing prim and stately for review as we pass into the park. Rising proudly above and back of them is the *East Temple*, a capitol dome, simi-

lar to, but smaller than, the West Temple. Facing these figures from the west wall are the Three Patriarchs and Mount Zion. Probably the most beautiful form in the canyon is the Great White Throne. It rises just beyond the public tourist lodges and forms a part of the unexcelled galaxy of figures clustered around the big bend in the canyon.

At Big Bend, alias Raspberry Bend, six miles from the canyon entrance, the river flows around the Angel's Landing promontory on the west, washing the feet of Observation Point, Cable Mountain, the Great White Throne, Mount Majestic, the President, and other celebrated skyscrapers which serrate the puckered skyline.

The plateau out of which Zion's figures have been carved was long ago christened the Kolob (sometimes misspelled Colob), a name from "The Pearl of Great Price, Book of Abraham," in the inspired literature of the Mormons or Latter Day Saints. Kolob, signifying the first creation, is the place higher than all others, being next to the throne or home of God.

These general features are satisfactorily named, but the river was never a virgin at any known age, for each springtime when the gallant Kolob is doffing its cap of snow to the returning sun, the jealous Virgin becomes a dirty, carousing she-devil for sure. Moreover, the fickle lady is prone to go on a little spree after every summer thundershower of importance on the plateau. To curb her in her tantrums she has of late been strait-jacketed by Government rip-raps; thus she may



Photos by Albert Wilkes

Zion National Park: A Shivered Landscape, West Rim Trail; and East Temple and the Three Brothers

now carouse to her temper's satiety, without harm to herself or others.

It is obvious to one who has noted the successful curbing of the Virgin, and appreciated the difficulties overcome in extending bridle paths to the rimlands, that in bringing out the park in its original debut, and in its annual presentation, the park superintendent, like the mother of a modern debutante, has had something to do besides act as a gracious host.

The Harding Highway ends just beyond the Angel's Landing, at the upper end of Big Bend in the Temple of Sinawava; but still northward a footpath leads a mile to the Narrows where the stream occupies the entire channel and the half-mile-high walls are vertical. The mystic Temple of Sinawava is a vast, natural amphitheatre formed by gigantic panels of sandstone scenery standing against the sky. It is a spacious sanctuary from which to contemplate, in a repose not earned by great exertion, some of the most impressive features of the park.

The Mormons descended into the valley of the lower Virgin River in 1853, settling at Santa Clara and St. George, according to history; and in 1858 settlements were established on the upper Virgin, near the mouth of the Mukuntuweap. The Mormon fields were crowded far into Zion canyon, and, though the scenic cradle has a much greater depth than width in its upper portion, there is still evidence of the temporary success of this unique husbandry.

Brigham Young first visited the upper Virgin

settlements about 1863, gaining his first close-up views of the glorious structures of the Mukuntuweap at that time. Moses Behunin, a resident Saint, enthusiastically extolled the beauties of this weird country and jocularly named it Little Zion, saying it was a suitable abode for the elect where the most worthy Saints might permanently dwell.

His curiosity thus intrigued, President Young one day entered his carriage and, attended by a company of people, started into the canyon above Springdale. But the vehicle was bumped and jostled about over the vicious boulders, especially those hidden beneath the boisterous stream, until the distinguished visitor was led to exclaim, "This is not Zion; turn back!" And back the party turned.

From that episode the place became "Not Zion," and was so lettered on some earlier maps of the region, though this name finally gave way to Behunin's "Little Zion" as the local populace learned to love it. Little Zion it thus remained through many decades, until rechristened first as Mukuntuweap National Monument and finally as Zion National Park.

As did Brigham Young, so did we on that initial visit flounder through the Virgin River longitudinally in a camp wagon for the want of a better road and a better conveyance. It was a rather strenuous experience, driving the obstinate team, keeping my seat as the vehicle lurched over submerged boulders, pacifying my wife, and straining my neck to observe the staggered rows of

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steaming, hissing breath, while the lapping, lolling river, like a powerful tongue, pressed downward against us with a definite swallowing force. No wonder my wife prayed!

CHAPTER XVII

ZION'S CABLE AND CREVICES

ZION PARK'S unique elevator, designed by David Flanigan, is a strand of steel cable around a controlling drum overhanging the brow of Cable Mountain, dangling double in midair a sheer half mile to two guiding sheaves at the landing station in Big Bend. Beginning in the park's early history as a single strand of common wire, the cableway has grown through many strange metamorphoses, often resulting from spectacular mishaps, to the existing device having a high safety factor and operated under Government control.

Its use has been chiefly for letting down the lumber used in the Dixie settlements and in the park, and it is looked upon as the literal fulfillment of Brigham Young's prophecy made many years ago to the pioneering Saints, that "the lumber needed will sail off the ledges like a hawk." But the extensive forests aloft have been harvested and set sail on "the wire" almost to the last stick, and the usefulness of this extraordinary escalator may be approaching the end—unless the plans of a certain engineer are perfected for sightseeing cages in which tourists may be safely hoisted skyward in the open air.

A few passengers have gone up and down on

the old cables, sometimes merely for the adventure, but often to avoid the long, tedious trail, though always at considerable personal risk. Chickens, pigs and dogs have also made the unusual journey, though at least one coop of chickens fell to destruction, and a dog, needed for herding on the mountain, was so frightened when released from the improvised basket that he disappeared forever.

I well remember an event some time ago occurring when our own party was on the trail directly beneath the cable. We were probably eight hundred feet above the base of the ledge when a thunderous crash and a roar came out of the sky, which set the skin rather tight on my face and body. There had been talk in the party about the age and deterioration of the ancient hoisting contraption; and when we left the bottom the workmen were preparing to send up a lumber wagon in parts, some food supplies and a few bales of hay, the down-coming loads of lumber to form the motive power.

With our ears full of echoes from the crash, and scraps of lumber lying about the face of the cliff as mute evidences of what had come down in the air in the past, I heard Winder say something about "the danged old frame" at the top. Believing we were in for something of a spectacle, if not a catastrophe, and encouraged by the attitude of both Winder and Gifford, who were blandly gazing skyward, I stepped from the canopy of a lone pine tree on the trail just as the second and more terrific crash came.

It was not the drum frame at all, but as we ascertained later from the boys aloft, a side of the hoisting box on the cable had split as the load started down and a half dozen heavy bridge planks were spilled down the cliff. They fell in a bunch a few hundred feet for the first crash against the cliff; and several seconds later, widely scattered by the wind, they crashed possibly a third of the way down, from whence they skidded in a cloud of dust over a route of safety as far as we were concerned.

"That wasn't bad at all," remarked Winder as he looked over the party to see that none of us had been frightened off the trail. "My wife and the children were right about here one day when a whole load of lumber came down. It hung together pretty well, and the bulk of it dashed against the cliff so close that dust and splinters covered her. She was carrying the baby, and four other children were with her on the trail, two of them in the panniers of a pack horse. None of them was hurt, though she went unconscious for awhile at the thoughts of it."

The lumber loads came clattering down above our heads on a cable whose ends were out of sight in both directions because of the distance. The friction braking, at the top drum, usually jiggled the bundle of boards so that their passing through the air could be heard; though when the upgoing loads were nearly as heavy as the lumber the run was slower and sometimes too slow to finish. In this event, Winder says, a cant hook is used on the drum at the top to wind up the cable, while

the men at the bottom assist by pulling on the cable.

The wagon wheels that went sailing up one at a time looked like winged wheels, sure enough, a sight that doubtless would have thrilled a Rotarian. The hoisting of the massive front wagon hounds, axle and tongue combined, a weight two men could hardly lift, left us appreciating the fact that the trail had carried us well to one side of the cable spillway. Vicious looking in the extreme was this part of the wagon. Sailing aloft like a terrible monster, its skeleton frame suggested avariciousness, its stub fighting wings violence, and its long, spearlike beak kept swaying and bobbing as if in search for prey. The bales of hay scarcely sagged or slowed the cable, and the bundles of clothing and bags of flour were mere flags on the line.

"About the worst experience we had during the seven years we operated the cable," said Doctor Petty, "was in letting father down one time. He was a large man and we had some unusual difficulty getting him roped satisfactorily to the little box on which he had to sit, between a heavy board and the cable. The upper end of the board was slip-noosed to the chain, in the usual manner, but when it started down the noose was scraped off on the guard rail. This let the top end of the board fall against the face of the cliff, though we got the cable stopped when father was only forty or fifty feet down. I am sure none of us could go through a more terrible ordeal than we did then trying every conceivable means of

getting him back up or getting him tied in more securely.

"We finally succeeded in getting the end of a long rope down to him, which he tied around the board and the cable above his head, with the aid of some lariats which we held. He pleaded pitifully for us to keep trying to take him back up, for he was thoroughly scared; but we could not do it, not even for father; and when we had finished the tying so that we felt sure it would hold, we yelled at him to hang onto the cable and took off the brake. It hurts to this day to think of sending him down after he had lost his nerve, but he alighted at the bottom with no harm other than the effects of the scare."

"The ride on the cable is sometimes very tempting," said Dave as he recalled the decision of a very heavy and much wearied tourist in favor of having himself tied onto the wire instead of walking down the toilsome trail.

"He had to be triply assured that the cable was as safe as a rocking chair and strong enough to carry a horse, insisting on an exchange of notes over the wire with the boys below so there could be no misunderstanding," Dave continued. "He was finally fastened onto the seat and started down at a lively clip; but, as ill luck would have it, he was halted with a violent jerk when but half way down, the sudden stopping of the drum serving to sway him with a wide, distressing sweep in midair.

"Intense consternation prevailed, needless to say, for the cable had run off the drum and there

was grave danger of its parting where it was kinked. Unable to replace the cable, a workman aloft flew down the foot trail to the bottom of the mountain for assistance and tools. Though they returned in about an hour by way of a short, risky route, it was certain the passenger was in great distress. After another hour's ticklish work on the apparatus, the precious weight on the cable started downward again. As the limp form of the fat man slowly approached the solemn party at the bottom, many solicitous hands went out to him, only to find that the poor fellow was—sound asleep!"

The trail makes several hundred feet altitude while zigzagging immediately under the cable from the start, but it finally leads off over a shoulder, or a wrinkle to be more truthful, toward the east. In several places farther up in a picturesque tributary gorge there are a few awesome crevices cut by running water. The springtime flood waters act like so much sand rope, scouring and wearing away the sandstones. The stream has burrowed to unbelievable depths, and in fantastic shapes, cutting crevices in the sandstone that are more than two hundred feet deep in places and only a few feet or yards in width.

In the flood season these channels, from three to ten feet wide, often carry a stream many rods in depth, being in fact a river running on its edge or a ribbon of water waving through the rocks like a flag in the air. This ribbon edge, filled with sand and sediment, is like a fluid belt of emery, the edge of which sways to and fro with the vary-



Right photo by George C. Fraser

Crevices and Channels, East Rim Trail, Zion National Park. *Right:* The Great White Throne, and Observation Point in Distance

ing resilience of the sand rock. The sides of these crevices are filled with humps and hollows which are often so large as to project into each other across the slit.

"One of the most regrettable spills I ever had," said Winder, as we peered into the much twisted chasm at the base of the south wall a mile or two up the east rim trail, "occurred while I was taking a bunch of horses onto the mountain. I had cinched a new fifty-dollar saddle on a wild one, expecting him to pitch about some, but finally to deliver the saddle at the top of the trail for me.

"Right here where the old trail was steep and slick on the bare rock, the crevice at the side is unusually deep. Refusing to go over this bad stretch of trail, the crazy nag went to bucking with the empty saddle. Downward he leaped over the slick rock floor, nearer and nearer to the edge of the crevice; and just as I was thinking that even a mad horse had sense enough to avoid danger to itself, he disappeared into that crack, like a bee in a jug.

"I slid from my horse and ran to the edge, but because of the humps and hollows in the close-fitting crevice walls, the pony was already out of sight. He was still going down, though, and I could hear his body striking the walls and my new saddle scraping the rocks.

"The crack at this point is nearly two hundred feet deep, and we had to go about a half mile to get into the end of it. We finally found the horse with a hundred holes in his skin and his breath gone forever, and my beautiful saddle was torn

and smashed into useless pieces. The breaking of the hind cinch had released the new fifteen-dollar saddle blanket which lodged on a shelf. It lay about eighty feet below the top of the crevice, but I tied two lariats together and one end to a tree and slid down and salvaged it as a souvenir," he closed the story.

Desiring to show this particular crevice to a friend on a later visit, but just before the Government rebuilt and broadened the trail, I was clattering jauntily along astride an agile, sure-footed trail animal under the cableway about a thousand feet from the bottom when my blood was frozen by Frank's despairing call some rods in the rear. From a farmer he had obtained as a mount an old work mare of large body, proportionately large, clumsy feet and a careless sort of abandon in her gait that would make the average trail burro seem over-cautious and careful.

She had stopped in a most terrifying place, with Frank's inner leg against the vertical wall and the other stirrup overhanging featureless space as from an ascending balloon several minutes from the ground. He was hugging her neck desperately with both arms, and even I was horrified for the moment, in wonderment at how my horse had passed the place, but more in anxiety because of Frank's dire predicament.

Panicky, and oblivious to the consequences, howsoever grave, Frank slid off against the wall, while the old mare very obligingly stood a little farther out on the edge of the trail, about as secure as on the edge of a cumulus cloud. She was

as calm as if in her stall in the barn, however, and her demeanor seemed to quiet us both a bit, though nothing could induce Frank to proceed, even on foot, toward our destination. I had promised to show him a thriller and had not counted this one!

No, he would not even ride the mile back down the trail, after we had turned his mare around on a wider place. Something told him it was not wise; something positively uncanny pervaded the dizzy atmosphere. We noticed that the old mare exercised much greater caution going down, though without her rider; and then—our blood tingled as we gazed at it, and at each other—no wonder the old beast had been so quiet at the narrow place going up: her canyon eye was missing!

CHAPTER XVIII

ZION'S RIMLANDS

AFTER we had penetrated the cedar and yellow pine growths on the level top of Observation Point promontory, we came with startling suddenness to the unguarded eaves overhanging the Temple of Sinawava and Big Bend. The whole plan of Zion Park in detail is revealed from here in one wonderful panorama, its striking features blazing out in nearly every direction, and the main canyon deeply trenching the landscape to the southward from us. The congregation of lofty summits, with only the upper portions of the smooth supporting boles in sight, presents a carved and severed surface such as Nature can hardly have duplicated outside of Zion Park.

Most of the staggering chimneys and towers in the park appear to have been quarried from the face of the solid rock plateau and left standing well out from the parent walls. Their tops are mostly flat, rising to the same level as the plateau, and they are of the same material and bear the same species of vegetation. From such a viewpoint these singular figures become veritable islands floating in the air.

In some respects this particular point presents the most interesting and expansive picture of Zion Park. But Zion's labyrinth of rimlands is so set

with viewpoints which differ as widely as form and color can differ, that to compare them and to designate a superior section is like subdividing a sunset.

Exploring the tortuous rimlands made us feel like human flies strolling along the cornices of a business section of city skyscrapers. We were constantly apprehensive, lest in parting the brush we would discover too late another jumping-off place into space. As we gained courage through familiarity, the distinct and clear-cut neighboring structures just beyond the bottomless abysses lent a quaint intimacy, holding out at the same time the warning sign: "So near, and yet so far"!

From an elevation on the heel of Cable Mountain we beheld the southern half of the park floating away unevenly to the west in a most inspiring landscape. The Great White Throne, only six hundred feet distant to the west, and a few yards below us, stands apart as an entirely new figure in this local world of surprises. The throne itself, including the royal chair, the benches, steps and balustrades of yellowish white sandstone, and over all the darker capstone or canopy, are near the middle of the thinly wooded courtyard. But all the drawbridges to the isolated place have been removed without a scar, and there were no guards or courtiers in sight.

The crevice between Cable Mountain and the Great White Throne is an awesome trench extending a mile due south. It is from four hundred and fifty to five hundred and fifty feet wide at the top and from eighteen hundred to two thousand feet

in depth, the lower two hundred feet consisting of an unlighted saw kerf. This singular gulley is as straight and symmetrical as if cut with a trenching machine, and it ends abruptly in a vertical wall at the south.

There are no scallops or projections on the sides of the trench from which to obtain a really satisfactory view lengthwise; and in my ardent desire for a photograph, I bent a tall bush outward and perched upon it just over the rocky eaves. To compose the picture in the viewfinder I balanced myself rather uncertainly like a young bird, while devoting attention exclusively to the kodak, trusting Reed to salvage at least my coat, on which we were both straining gently for safety's sake. But fear overcame me the moment I had finished, and while the stereograph thus gained is something of a thriller, I would not do it again for the exclusive picture rights in Paradise!

When we reached the rim back of the Deer Trap, where everything falls away into the main Zion Canyon directly above the tourist lodges, we sensibly stretched out prostrate on the broken rock rim, with only our heads overhanging. Not even the turbulent Virgin River could reach us with its roaring call, for in the distance its features were immobile and much less distinct than the texture of the clouds above our heads.

If again we attempt to select a segment of the sunset, I will say that the west rim trail is even more heavily charged with thrills and set with transporting prospects than the east, for the region of gigantic erosion is more extensive. But as



Lower photo by Albert Wilkes

The Great White Throne, Zion National Park. *Above:* Looking North on the Top. *Below:* Looking South

Nature has abandoned all precedent in producing the extravagant forms and colors in this strange, celestial city, so must we fling aside all ordinary mental concepts in our attempts to describe it.

The west rim trail begins opposite the public automobile camp, and rises gradually along the great rock wall. A courage testing thrill is delivered within the first mile, where the trail is hung onto the vertical wall far above the swirling Virgin, by means of a groove or half-tunnel cut in the rock; but a low parapet trims the outer edge, and the guide says one doesn't have to look in that direction!

Nevertheless, in soothing contrast the trail shortly nestles beside a tiny side stream in a cool, shady crevice. This is between the Angel's Landing and the west canyon wall, and is appropriately called Refrigerator Canyon. Into the sunshine again we rode to the top of the Angel's Landing, where we posed as a group of animated statuary, since this mid-canyon pedestal rises appropriately in the Main Street intersection of Zion Canyon.

Thence to the far west rim we transferred our attention and admiration very largely to the Government trail—safe and wide for such a route, but offering sufficient surprise and adventure to make it always interesting and sometimes exciting. At one place, looking backward, out of a gorge of great depth, we were greeted by the distant form of the Great White Throne, dazzling in the sun, and accurately framed in the end of our darkened avenue.

Just across the first plateau, Surprise Valley

gave us a tingling surprise like a sudden face to face with an enormous animate creature—beautiful of figure, but strange and half wild in aspect. Farther on, the Horse Pasture peninsula on Kolob's lofty south rim might better be rechristened Pegasus Point, for the pasture is inclosed with some of the park's most forbidding scenery, allowing only our imaginations to roam.

Southwestward from here trends the Great West Canyon, superior to even Zion Canyon in some of its features. North Creek, draining this canyon, empties into the Virgin River near Virgin town, most of its coiling course being clearly visible from the lofty Horse Pasture. It passes through the Guardian Angel Pass which is formed by two enormous beehive buttes of pure white sandstone, almost as large and as high as the major features in Zion.

The ascent of Mount Zion (Lady Mountain), opposite the tourist lodges, is one of the most satisfactory experiences to be gained in the park. Viewed from any angle below, this typical, smooth-sided tower is apparently without a notch, seam or wrinkle in which to lodge a trail; yet the way leads reassuringly from the headquarters lodge across the springy wire suspension bridge to the bottom section of Mount Zion's thrilling fire-escape.

Ranger Russell, who assisted in attaching the fire-escape to the wonderful wall, could not be spared as a guide for a party of less than six. I canvassed the lodges, tourist camps and public utility aids, though with only two recruits. Some

were too fat, some too tender, some had beer there, thank you! But most of them were afraid Gaumer, however, was over-keen for adventure and Heydinger was only waiting to help make up the number. I prevailed upon Winston and Irving to suspend work on our car, and we carried the Mount Zion signboard and support for the summit, in lieu of the sixth recruit.

The zigzags and switchbacks which lifted us through the first few stories soon gave way to steps chopped in the rock, to pole ladders, to inner corner climbing and to hand-over-hand work on an iron cable hand railing which reached like a friendly arm across the more ticklish places. Before long the trail below disappeared and we could not see which way we had come; nor could we even guess which way the cliff dwellers' path was to conduct us onward to the top. But the boys became hilarious with the experience and climbed with increasing vigor. O, for the Elixir of Youth! The college girl aids at the lodge went up after one midnight, just to see the sun rise!

Heydinger had ginger in his shoes and couldn't wait; only once did we see him, rapidly working his way over a hump about seventy stories above us. Views of the canyon below called for photographs, and more photographs, as it shrank endwise, and a mile or two of it crept into the viewfinder. The far wall became figured with recesses and façades not visible theretofore; and then came the summit, with only the clouds in the way of farther ascent.

It was a strenuous climb, for, after all, there

was nothing besides our hands and feet for lifting us up, and the dome is three thousand feet straight above the black specks near the brown cubes of dice, which we identified as automobiles near the tourist cabins. More than once I had faltered on the way but was revived each time into amiability and finally to genuine joy on gaining the top, for this is one of the choicest islands in Zion's wonderful archipelago, the only one whose summit has been made accessible.

Mount Zion's proud and noble crest rises to a commanding elevation near the center of the Zion Park map. From the top a labyrinth of sheer gulleys shivers the landscape in the comparatively close foreground, and the most magnificent of Zion's figures gaily float in the offing all around.

Heap's Canyon is a fissure riven earthward on Mount Zion's north side, and Phantom Valley opens abysmally to the west. At the south an alcove from the livid Phantom void almost severs Mount Zion from the Three Patriarchs, while, sweeping the east face, is the kingly roadstead of Zion's main canyon. The figures in the galloping east wall from the Watchman and the East Temple on the distant right to the Great White Throne on the upper left were redolent and active under the morning cloud shadows, while far below us the roadway and the stream course, like continuous strands woven in the fabric of the canyon bottom, were breath-taking reminders of our perilous perch.

Strolling about this splendid dome, we surveyed at leisure the vast and glittering "New

Jerusalem" in its entirety, with all its majestic fronts, its sacred courts and its significant columniation, rising to meet the sun. For making the arduous climb, we were thus rewarded with a fitting crown of satisfaction, convinced that those who sense the full glory of Zion, who really comprehend the holy city of rocks and who thoroughly appreciate the splendor of its many mosques and temples, may not linger in the crowded corridors below, but on some trail or other must climb the Golden Stairs!

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CHAPTER XIX

THE GRAND CANYON OF ARIZONA (NORTH RIM)

THE Grand Canyon of Arizona cannot be belittled to the status of a mere scenic attraction, for to visit it is to undergo a great change of thought as in a deep emotion. Like an affair of the affections, it cannot be described in language but must be experienced to be even partially understood. To me the Grand Canyon stands apart as one of life's greater episodes. This may be because the region was wooed intimately in advance in historical, exploration and geological literature; and I was led by the hand of good fortune through the kingly Kaibab Forest to the thrice wonderful north rim region where all the intimacies of the geological ages are revealed in indescribable splendor.

My Pegasus, pretty well fed up on scenic America, fretted long for a fray with this great purple dragon of Arizona. The onslaught was to be from a strategic salient on the north rim, where, under cover of the Kaibab Forest, we might fly upon the vast but slumbering leviathan and secure its opalescent epidermis with a few slashes of a journalistic scimitar.

But Pegasus was evidently over-confident, for as we volplaned wide-eyed toward the awful

earth-devouring octopus, and beheld it in the very act of clawing at the facial features of the comely Kaibab—a sublime orgy in which the picturesque plateau is shredded into the abyss by the lashings and lavings of the beast's terrible tentacles—my once proud Pegasus fretted at the approach, flinched and chilled noticeably as we alighted, and before first aid could be administered from the Thesaurus and other balms in the bags, poor Pegasus petrified, leaving its bewildered rider absolutely void and powerless.

There remained only a faint sense of admiration for those brave souls who previously had essayed to describe the world's greatest scenic spectacle, and got a few words written down before it overwhelmed them. Even a Pegasean imagination is helpless before this geological script of the Almighty.

Stalking pillars of sand had prowled about as we crossed the desert from Kanab, Utah; but at Jacob's Lake we found the mountain having a refreshing thundershower bath. After the deluge came the brilliant sun, like the exploding of the storm in the sky.

The Kaibab Mountain is an immense forested raft adrift in the Arizona desert sea. Boundless fields of yellow pine on the undulating deck of the Kaibab are hatched by open parks and vales of pleasing beauty, the whole surface being washed shining clean by perennial thundershowers. But the subterranean formation seems to be porous for no important water bodies and few springs appear.

"White Tail Squirrel Territory," we read on a roadside sign; and sure enough not many rods farther a white-plumed rodent raced across the way and shinned up the far side of a yellow pine. He soon reappeared in a crotch above and gave us the passing sign, using his tail as a semaphore.

The graceful highroad, laid on Nature's curves to fit the grassy glades and forest colonnades, is like a drive through a public park. We peered expectantly into every alcove and at every turn for a spouting fountain or a shaft of statuary, for the Kaibab Forest is a fitting forty-mile vestibule to the canyon scenes to come.

First impressions of the Grand Canyon, no matter where it is seen, are apt to be the most eloquent and lasting, though intrinsically the North Rim is the much superior scenic region, the natural grandstand from which to view the scene. And Bright Angel Point, softened with draperies from the green-room of the Kaibab Forest, is the royal theatre box before this parade of cyclopean forms.

The North Rim is the inner, shorter side of the great curve described by the Colorado River in its two hundred and seventeen mile course within the Grand Canyon proper. The survey lines reveal more than two thousand miles of actual distance on the North Rim, though it is only fourteen miles across the tip of the Kaibab in a straight line from the breaks of the Nankoweap on the east to the walls of the Shinumo on the west, amphitheatres which roughly mark the first



Photo by Albert Wilkes

A Countersunk Mountain Range, in the Grand Canyon of Arizona. View from Bright Angel Point on the North Rim

and the last of the vastly deep and extravagantly figured valleys of the Grand Canyon proper.

Though public tourist lodges now occupy the base of Bright Angel Point, and the automobile road rather modernizes the approach, the old deer trail along the rim is still there, over which our first memorable visit was made.

The forest supervisor lost a bet when by accident I led the party from Bright Angel Ranger Station on the proper trail; but he won it all back again with interest very soon. I knew the Grand Canyon maps perfectly, and like a hound pup on a cougar trail I bounded forward with much assurance.

We soon sighted the abrupt end of the timber a few rods ahead at the top of the slope, and here the forest, the slope, and the whole face of the earth dropped noiselessly away from the line of sight. It had, however, apparently become lodged when only partly submerged. There it lay, quivering in a maze of colors before us and below us like a vision of a promised land.

I became subdued and silent in this awful presence for a time, and then the sound of voices restored me, and my ordinary sense of dominion returned. "See," I chatted glibly enough, "here in front is Bright Angel Canyon; to the right is Bright Angel Point, and to the left is Obi Point; yonder are Deva, Brahma and Zoroaster Temples, and the Angel's Gateway; beyond them all is the opposite wall of the canyon—that opposite wall is fifteen miles away from us!"

"How plain it is for such a distance," studiously

observed my wife; and then the supervisor whispered something to the girls, and I remembered ruefully that while he had been there many times before, he had not yet said a word. He then urged us all onto the pathway to Bright Angel Point, a well worn trail among the pine cones, along the rim of eternity itself.

In a half hour, with vistas and views of the canyon crashing through the trees at us, until we were numb and dumb, we had climbed, crept and crawled to the flatiron end of Bright Angel Point. This is a narrow and comparatively flimsy buttress rising rather dizzily out of the blue and detached depths, like a mass of stone in space. One almost expects to feel it heaving and swaying with the swells of the unseen waters under the great prow below.

Clinging to the rocks, I knelt down and crawled to the edge of the precipice. While craning my neck cautiously for a look downward, my wife, who was gripping a frail cedar for security, shouted frantically something about my inadequacy as a fountain of wisdom. But she also flung the gruesome compliment that the life insurance was not nearly sufficient to console her. Nevertheless, I looked; I had driven a team more than two hundred miles for the privilege!

It is seven hundred feet downward to a short talus ledge containing a few green spots—trees of unknown size; and beyond that, directly downward, it is just three thousand five hundred feet—nearly three-quarters of a mile, to the purple, bluish, brimstony bottom of that awful abyss. I

then crept back a few feet and resumed my breathing.

Still on my knees—my legs were uncertain—I gazed in enchantment across, and up and down, the coffin-like transept. With its scalloped far wall, and its upper end, both with dainty lines and colors dropping downward over a bluish wall beyond the range of vision in the depths below, it was indeed a perfect casket—empty, thank goodness!

Lest my imagination should place a silent, shut-eyed figure in it, I lifted my gaze to the rounded rim, draped so funeral-like with ferns and posies, in reality the mightiest of the forest pines a mile away, which shed their cones in the illimitable depths. The actual dimensions are far beyond human comprehension, for feet are expanded by leaps into fathoms and rods.

I then thought I was ready to contemplate the main canyon, and I arose and moved cautiously around the rock pile on the point. As I wiped my eyes and sought to calm my senses and steady myself, I heard the supervisor's hearty laugh. My Obi Point had been but a wrinkle in the rim wall, and my Grand Canyon was only Bright Angel Canyon, while to the southward, filling an arc of forty-five degrees, was spread the real Grand Canyon, the magnificent mirage of the cloud-strewn sky, inverted in the depths of the earth, and figured with countersunk mountain ranges of extraordinary scope and beauty.

The scene hushed out the derisive laugh, and the man, and the party, and the point, and left

me there alone, detached and transfixed. I seemed to be in spirit-land; and yet how real was it all! Luckily, we were not honeymooning on this trip; it is no place for the man who is not prepared to forget the very hand he is holding! I was childish about it, and under the circumstances it is a privilege to be so, for I may be forgiven for ever attempting to tell what I saw, and for failing so miserably in the attempt.

Bright Angel Point, eight thousand two hundred and fifty feet above sea level, thrusts its nose far out among the canyon's greatest configurations; indeed, it is one of them, being the central feature in the resplendent Bright Angel amphitheatre. Most of the major forms in the entire Grand Canyon proper are disposed in front of Bright Angel Point, from one to five miles distant, like conspicuous objects in a busy harbor. Nearly a score of headlands and promontories protrude their bows outward to right and to left of us, like great ships riding light; and the ten or twelve so-called temples in plain sight lift their domes and spires almost to the level of our viewpoint, though many of these features are nearly a mile in height above the general valley floor of the canyon. All these forms are much intensified and set apart by their shadows from the southerly sun.

A pretentious piece of music has been called "The Grand Canyon"; indeed, it seems that no form of expression fails to unfold from the awe-stricken human consciousness, and varied are the ways in which the canyon is memorialized, not to

say immortalized. But for great depth of emotion and a genuine appreciation of the canyon, the palm must be awarded to him whose soul swells in an ecstatic desire to whistle it!

The Grand Canyon region may loosen the wings of many a Pegasean prancer and unlimber the kit of the world's most courageous artists; but the man does not live in mortal flesh who can adequately paint it or describe it. When some saintly creature can reside on this enchanting rim and imbibe the spirit of it so well as to describe it satisfactorily, the Gettysburg Address will be the babbling of a baby, and the Twenty-third Psalm a sophomore essay.

After seeing the canyon at its best, which means with its face and atmosphere suitably washed and clarified by winds and rains, all of one's ideas of Nature's beauty and grandeur are eclipsed. Usually, howsoever great an experience may come to us, we still have the persistent feeling that there is yet to be a greater; and no matter how extraordinary and impressive the experience, we survive it and look on somewhere else for a grander and greater.

But to turn away from the Grand Canyon is to turn away in satisfied silence. The deepest surges of enjoyment of the beautiful and the farthest waves of yearning are stilled before this transcendental spectacle. To attempt to tell about it afterward reveals the spark of divinity; but to fail utterly in the attempt, as all do, is but the mark of the human, and is a fact, not about the visitor, but about the Titan of Chasms!

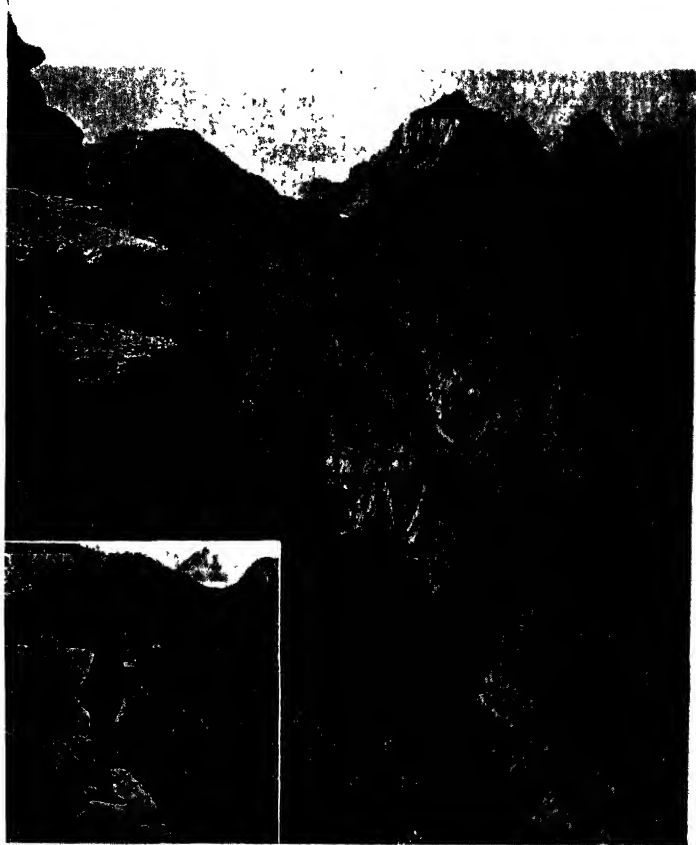
CHAPTER XX

ADVENTURES IN THE KAIBAB FOREST

IN the dim morning twilight, while we were wrangling the horses a mile or two from Bright Angel Spring, I saw the full broadside of a sorrel animal hurrying along about five feet ahead of a yellowish question mark, which, of course, was a cougar's tail. A little chill swept over me, not due to the climate, and my skin drew up so tight I couldn't run. Dave had just related how three vicious, deer-destroying beasts had attacked and mutilated some horses near that particular place; and I was greatly relieved when we found our mounts grazing contentedly.

The cougar story traveled like wild horses, for a Ranger, mounted on one, raced to the spring for Uncle Jim Owen and some New England cougar hunters. A half hour later as that crowd of men and dogs pressed about me for details, I shrank from them, for I alone had seen the beast and was to be tried by a jury of dogs for the crime.

Toward noon at Far View the hunters swarmed about, awakening us from our reveries, and a forward youth bluntly notified me that my cougar was a hoax. "It is usually the newcomers that see them," he said depressingly. But Uncle Jim apologized in a friendly way. "The dew was heavy



Major Photo by Albert Wilkes

Deva, Brahma and Zoroaster Temples from Bright Angel Point, North
Rim, The Grand Canyon of Arizona

when the 'cougee' ran," he said; "and it was some hours before we all got together and took the dogs out; the trail was dry."

But a few days later, when we came out of the canyon, Uncle Jim called on us at Catalo Spring and modestly announced that they had caught the cougar, near the ledges, not far from where I saw it; it had come back there, as he expected it would do, while we were in the canyon. Bestowing credit where credit was due, he fondly patted his silver-collared hound, "Pot," who had thus been at the killing of his one hundred and seventy-sixth cougar, mine!

It was one of the last, for the Kaibab cougar has gone over the rim into Elysium, and Uncle Jim, in his advancing years, has turned cattle-rancher and dry-farmer. As a predatory wild animal hunter, on the Kaibab and elsewhere, Uncle Jim early found that no wild animal pursuit excelled the sport and excitement of a cougar chase in the Kaibab Forest along the North Rim breaks. He once brought a cougar within the range of President Theodore Roosevelt's deadly gun, and soon became a famous guide and hunter. He thus left the Government service and for a time acted as guide for private parties of sportsmen.

Uncle Jim has been at the killing of about two hundred cougars since he first went to the Kaibab, twenty years ago. While acting as hunter for the Forest Service from 1905 to 1912, he turned in sixty-seven cougars, his greatest year's catch being twenty-seven. Other Government hunters, beginning operations in 1916, have taken nearly a

hundred cougars from the Kaibab country. Possibly the principal reason the cougar is no longer a serious menace to livestock and deer on the Kaibab is that about forty were taken in the winter of 1920-21, ten or twelve of them by Uncle Jim's parties. The animals have not since gotten a new start in any important numbers, and cougars are now seldom caught or seen.

But hist! Into the primitive stillness and wildness of the Kaibab a new kind of soft-treading, swift-moving and all-powerful creature is flitting, streaking and climbing; it is the automobile! On a recent visit, Winston and Irving parked our own coach on the Far View rim for a night's encampment; and on another night we slept in superb berths at Point Sublime. We did not leave the car back at the Hindu, but rode the rubber so near the point we blocked the wheels lest the car should by some chance roll into the abyss while we slept. A canyon-loving friend was distressed when shown a photograph of the automobile at the Government flag station. "Thank God," he declared, "Powell Plateau is still safe from such desecration!"

Far View, where the cougar hunters interrupted us, is on the east Kaibab rim, overlooking the Nankoweap and Kwagunt amphitheatres at the beginning of the Grand Canyon. Eastward across this magnificent sunken valley of shadows, intensified in the morning sun, is the Painted Desert, beginning nine miles across the chasm and racing into the rising sun. Marble Canyon, like a gutter some three thousand feet in depth, bears in its

dingy depths the Colorado River. Out of the farther wall, and to the right, the Little Colorado River appears as a lesser dragon, writhing its way, open mouthed, into the parent dragon.

The immediate foreground rolls over the cliff into an abyss without a bottom. Promontories to our right and to our left ram fearlessly out into the canyon a mile and terminate, as does the wall at our feet, in a sheer drop of a thousand feet to a narrow, sloping talus, followed by another vertical drop of eleven hundred feet to the apparent bottom, according to the reconnaissance map on our laps.

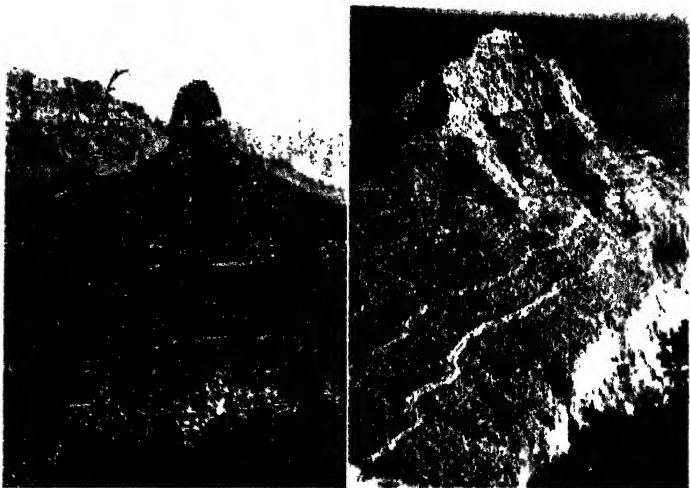
Atoko Promontory at the right is banded with bright, crossbedded sandstone resembling a school girl's ribbon cut with the shears at the outer end. Just a mile farther out from the end of the ribbon is Siegfried Pyre, a triangular butte two thousand eight hundred feet above the ravines, and averaging two hundred feet in diameter. Having a flat top, and its corners softened in the distance, it appears to be the spool from which the ribbon was unfurled; though, showing the crossbedded sandstone itself, some of the beautiful ribbon seems to remain on the spool. Gunther Castle, Chuar Butte, the Nipple, the brilliant Point Imperial, and many other figures on the near side of the abyss wear these shining bands of distinction, common to all the loftier forms in the canyon.

At the south end of the Walhalla Plateau (the southeastern extremity of the Kaibab), the panorama of the Grand Canyon spread out before us from Capes Royal and Final is one of the most

extensive of all the canyon scenes. It comprises practically the entire upper end, the southeasterly curve, and the middle of the canyon series of units. The canyon is open to the south and west, giving a glorious prospect in the mid-day, afternoon and evening, when the shadows accentuate the forms.

Just offshore to the southward are the commanding forms of Wotan's Throne and Vishnu's Temple. Vishnu's Temple is in some respects the grandest of all the canyon figures; its rambling architecture, its massive series of bases, its colossal and towering superstructures, and its colors faintly veiled in the thinnest of the canyon haze garments make of it an impressive object. From Cape Final are opened views to the north and east, which, but for the flattening effect of the mid-day sun over our shoulders, would become some of the canyon's gayest and grandest.

Crossing the canyon is an adventure no less splendid today on a national park trail than when Ribbon Falls was an unmolested bird's bathing shower; when Phantom Ranch lodge was but a prophecy; and when the musical murmuring of Bright Angel Creek in its dark and deeply carved cradle was unpunctuated by the clank of iron shoes on horses' hoofs. Even the resilient wire suspension bridge across the Colorado River—for lone animals and pedestrians only—carries a delight to the heart of the most sophisticated traveler. The canyon depths are apt to swallow up the major canyon figures, but in their stead come the more intimate personal experiences which



Photos 1 and 3 by Albert Wilkes

Cape Final, North Rim, The Grand Canyon of Arizona. *Below:* The Nipple, Nankoweap Amphitheatre; and Vishnu's Temple from Cape Final

will enliven the memory while remembering endures.

My first crossing was on the old cable tramway on a day when the suspension bridge was only in the planning. The Colorado River is four hundred feet wide at the crossing, near the mouth of Bright Angel Creek; but just below, it descends through a rapids into a narrow, curved gorge, from whence comes some of the roar that has echoed through the Grand Canyon literature for several generations.

It was only 5 A. M. when we arrived, and the cable could not be discerned until we were beneath it. The cage, an iron skeleton affair, was against the rock wall, and Jim and I got in, observing with some misgiving that it was fifty-five feet to the sand-laden water of which we had drunk but a few minutes previously. We directed the operator to "Let her go" about as reluctantly as a convict might signal to the hangman; and as the wheels behind the cliff rock anchor began to rattle, the whole canyon side and the water's edge moved slowly away from us.

We glided breathlessly outward on the sag in the cable to the middle of the stream, where the cage halted, but swung like a bell to and fro. Jim and I were the unwilling bell clappers and we clung to the girders of the cage until our hands hurt. When I looked down through the open end of the swinging cage toward the swirling water and observed the drunken river careening wildly, my whole insides, legs, bones and all, tried to climb up into my chest. I am sure that if Jim

had discharged the rifle into me anywhere below the second rib I could not have felt it; but Jim couldn't shoot; he could only gasp with a boyish oath, "Why didn't they bolt some doors on the darn cage!"

It didn't quiet me a whit to visualize Dave's previous escapade of drawing himself across the cable seated in a trapeze, because the cage was on the far side of the canyon! But the man at the wheel had been as busy as our wild imaginations could have desired, and by the rhythmic impulses communicated from the crank on the wheel, soon had us nearing the black granite cliff at the south. We there pried ourselves loose from the cage and alighted safely on a high-water shore line in an alcove, panting with relief from one of the choicest little thrills in the entire canyon.

It was eleven miles, one of them vertical, by the tedious pedometer route to El Tovar. Bright Angel Trail, Indian Gardens, the tourist burro train, El Tovar Hotel, and the South Rim promenades were ample rewards at the end of the climb, to say nothing of the rest and the sumptuous restaurant. I have since done the south rim with the dudes, but no new experience is available there that can eclipse those we had that day as canyon tramps.

Descending again into the canyon with the shadows that evening, we courted anew the canyon's fascinating witcheries. With the stars and moon of a desert sky turned like a roof over the shadowy forms in the canyon bowl, we seemed to be swimming in a river of weird and gloomy

scenery all the way to the depths of the cañon crossing. In the ensuing days we retraced the Woolley Trail in Bright Angel Cañon to the lower North Rim, glad to be again on the glorious Kaibab.

Though evening approached when all trails are readily absorbed in the darkness, I yielded to the urge for another view from the rim into the wonder-filled cañon. President Theodore Roosevelt once stood upon the point next east of Bright Angel and while there uttered the declaration "We must preserve it for the American people as a result of which decision the cañon was set apart as a national park.

I wanted to see what President Roosevelt saw. Thus, shortly before a gorgeous sunset, I emerged from the forest onto Natchi Point alone, greatly awed by the impressive spectacle. A new display appeared throughout the cañon; it had become an incomparable river of scenery flowing toward the setting sun. Each cañon form trailed a shadow veil from its head, and each veil rose and lengthened with the lowering of the sun, to intensify the illusion that the unique river was flowing with accelerating speed. Then, in a few precious minutes, the noiseless rushing ceased, and the cañon practically disappeared under the blanketing shadows of the night!

CHAPTER XXI

POINT SUBLIME AND POWELL PLATEAU

THE Kaibab Forest was never more beautiful than on the October day when Frank Gay and I, piloted by Dave Rust and Charley Mace, set out with pack animals from De Motte Park lodge for Powell Plateau by way of Point Sublime. True, the velvet carpet of the park had been browned by the frost; but with the tinting had come the blazes of the frost-painted quaking aspens with which the fringes of the park were aflame. Some of the higher aspen clumps had already burned out, so to speak, having shed all their foliage, leaving the groves in dainty winter attire. But these only increased the variegation and deepened the blushing of the comely mountain as it tucked itself in to hibernate.

We nooned in Sublime Canyon at Sublime Spring, though this tiny watering place, like the tourist lodges, had practically closed for the season. After noon we moved on down the graceful groove of Sublime Canyon, sublime in form, in trimmings, and in colors, an enticing avenue of Nature's making. There was still Big Springs water in the canteens and a glorious day was flowing by.

A small band of deer parted on our approach at a spread in the canyon. The half-doubtful does

hopped a few rods up the wooded slope for better perspective, their downy bustles bobbing animatedly, while a wise old buck looked up through his Harold Lloyd glasses like a sedate professor, unmoved by what he saw.

At daylight eight deer stood inquiringly near the cabin doorway when we arose; and the previous evening more than a hundred deer were promenading in De Motte Park within sight of the lodge. While returning from Bright Angel in the dark one evening, we split a band of thirteen, at least, which were staring unfrightened at the automobile lights. But one or two buckskin carcasses near the roadway indicated that not all the deer escaped collisions with touring cars at night.

Most of the deer move into the lower side ravines when snow comes, where they remain through the winter. The February molting of the antlers finds the deer still in the lowlands; thus the occasional bleaching "pack-saddle" of the buck found on top of the Kaibab usually indicates a casualty.

"I'll show you a cougar for every young quaking aspen you show me," said Charley, mentioning the propensity of the deer to browse on the small, tender growths. "They stand up on their hind legs like goats, and eat the young stuff as high as ten feet; that is why there is no small brush on the mountain."

When cougars were rampant, striking down their scores of fawns, there was forage on the Kaibab for the surviving deer. But with the cougar gone the deer in increasing numbers lately

have almost eaten themselves out of forage. Several schemes were suggested or tried for establishing and maintaining a better balance. Chief among these plans are the open shooting season, off the mountain and after the tourist season closes; and depleting the deer numbers by transfers to city parks. For this latter purpose the fawns are taken young by the Forest Service and reared in captivity by private families.

The Biological Survey hunters declare that the coyote has in some respects succeeded the cougar as a formidable enemy of the deer in bad winters. There is plenty of evidence that these animals, working in packs, feed extensively on fawns, and occasionally pull down a full grown deer. One significant trail but a few hours old in the deep fresh snow, found by Holman who followed us by a few days, was made by a heavy deer and six or seven coyotes all traveling rapidly.

In some places the coyote tracks swarmed about the deer trail; in others they merged into the deer's tracks in the deep soft snow. Additional coyote tracks came in from the forest on each side of the trail here and there; and then in a glade in the midst of a field of bloody, beaten snow the trail ended at the freshly licked skeleton of a full grown doe.

The storied wild horses of the Kaibab are mostly gone. The first evening we sighted three wild beauties at the Sylvan Gateway in De Motte Park; a fine dark bay with arched neck and flowing tail pranced out of the glade with a springy pace, followed by two others. Later a fleeing

group of five was seen in Robber's Roost Canyon toward Bright Angel. But the wild horse range is largely preempted by other livestock, and the rangy wild horses have been depleted by the carload to eastern horse markets, to local ranchmen, and many have been ignominiously shunted, instead, through the chicken feed mills at Petaluma!

Toward four o'clock, Charley turned up into a draw to the north, taking an extra pack to Kanabonits Spring for the canteens' sake. Dave led us, apparently by instinct, into the open sky out of the south side of Sublime Canyon and onto the head of the Hindu amphitheatre.

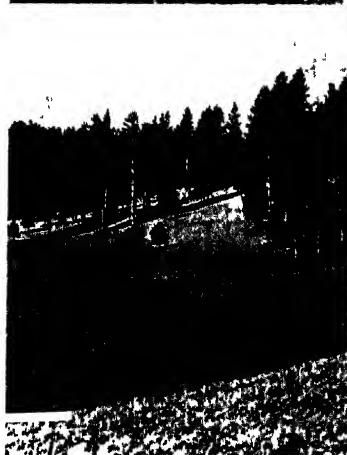
This great scallop in the Grand Canyon's side was brimful of a cold, quiet haze. Its box-like sides presented a vertical echelon of telescoping frames, and the spacious bottom appeared at a great depth in the middle distance. To the left the rugged crest line of the Dragon thrusts itself well southward into the main canyon, and to the right Point Sublime terminates in the blue void still farther south.

We followed the Hindu rim a mile or so, while the trees whirled along the edge of the abyss like cage bars before a moving beast. Then we reached the unforested sage-brush heel of Point Sublime, with its transverse gulleys to slow up our speed. Dave voluntarily sacrificed me, urging me on ahead in a race with the sunset to the point. I outran the sun by fifteen minutes, and Dave conducted the second section of the little caravan onto the point two minutes before sunset.

Point Sublime thrusts itself far to the south, almost against the river, like a pointing forefinger, and forms one of the most commanding viewpoints on the Kaibab Plateau. The chasm at this point is only about seven miles across, this being the narrowest place in the entire canyon. Both walls are here very deeply recessed by amphitheatres, and the stream in its granite cradle is a little more than a mile below us. About fifty miles of the canyon is in sight, twenty-five in each direction.

The Hermit Cabins on the Hermit Rim Trail down the south wall are seen directly above a patch of the river to the southeast of us on the mid-canyon granite floor. The cabins are at the foot of the bulky Tower of Babel. South of us against the far canyon wall are the Twin Temples, and on the near side of the gorge are Sagittarius Ridge and the West Cloister. To the westward in the evening sun is one of the most densely figured sections of the Grand Canyon. The inner gorge is a sinuous groove in the distant canyon bottom, while the elevated form of Powell Plateau blocks the entire canyon to the northwest.

The Dragon's Head, occupying the comparative foreground to the east of us, has a slotted, sleepy eye as the sun goes low; and the gloom soon covers it thickly in its canyon bed. Confucius, Mencius, Osiris and Shiva Temples in unison turn off their floodlights when the Dragon sleeps. The little spot of river surface tried to glint up at us, but it was a dull, sandy glint five or six miles distant. Soon all was dead and dark, save the dis-



Photos: Above, by Albert Wilkes; lower right, by D. D. Rust
The Grand Canyon of Arizona, Southeasterly from Point Sublime.

Below: A Kaibab Forest Vista; and the Vanishing Cougar

tant and fairly successful twinkle of an electric light at El Tovar Hotel.

"Fellows come here and cry," said Charley, who got in at dusk with the water; "but I wouldn't care if I never saw it again." After a late supper, the warmth of the great canyon came up with a pouring rush to aid our feeble fire in keeping us warm during the bedtime visiting hour.

The next morning Dave was up with the twilight arch, chiding the rest of us who were bent on a little beauty sleep. But the scene was worth the early effort; a new glory is shed across the canyon by the eastern sun, and we revelled in its magnificence. As the morning sun illumines the colossal south canyon wall its promontories lengthen and its recesses deepen greatly as if slowly unfolding in papier maché.

"It is thirty separate miles to Powell today," said Charley with some anxiety, as he noted how reluctantly Frank and I faced the day's duty in the hard saddles. We retraced the way to Kanabonit's seep and refilled the canteens. Then we navigated the jungles of down-timber, aviated and volplaned over the stately ridges and into the immensely deep canyons, never, not ever, coming into a wide open glade in this inimitable, illimitable forest.

The guides were following the forester's dot-dash or nick-and-blaze tree trail system, but once or twice they got lost. A classic theme for an artist to paint would be: "The Guides at Fault," as Dave and Charley sat deep in their saddles

contemplating the beautiful but bewildering maze of timber all around and wondering which way to go. Frank and I could only look at each other, thankful that we were no more lost than usual. No wonder one of the Land Office surveyors was lost recently!

"We better keep to the west of the ridge," Dave counsels. "We can add five miles very easily by getting too far north." And, thanks to the lost trail, Dave brought us onto the balcony of the brilliant and deeply gouged Shinumo amphitheatre. Elaine Castle rises out of the Shinumo pit; Merlin Abyss is an aisle toward the stage, and the tit-like Temple of the Holy Grail stands up like an orchestra leader toward the distant footlights of the vast natural theatre.

We encamped on Rainbow Plateau toward Violet Point, the camp site being selected in a plush-lined, tassellated theatre box overlooking Merlin Abyss and abreast of Elaine Castle. Dave and I arranged to pursue the quest to Violet Point, since the day was not all spent; but Frank was warm in his praise of the camp site, and Charley was busy with the nags and the supper.

Viewed from Violet, Point Sublime is a mid-distance rampart which spans the entire eastern skyline, terminating in space far out to the right in the canyon blue. In fact, the south canyon wall has apparently turned farther south to get around it. The Holy Grail is a fine manikin from here, and Crystal Creek gleams from a distant haze-dimmed spot in the bottom. A Muav Canyon-Dutton Point prospect on the west of Violet Point

formed a very satisfactory benediction on a tiresome but delightful day.

As we set out the next day, Charley made the cruel observation that Frank had ridden the stirrups for three miles on our second morning out, afraid to touch the saddle; but this morning Frank had hit the saddle like a bag of rocks! My sympathies were entirely with Frank though I carried but half his weight.

There was no trail, and Brownie loved to ride the oak brush saplings with his packs, especially going down the steep slopes, indicating his reluctance, also, to press forward into the day's tasks. When the oaks bore the weight of the packs, Brownie wisely abided, awaiting Dave's yell and the sting of his rope. Sometimes on a steep slope the pack horses skidded several yards until eased by a thicket or a tree. No wonder pack horses are an unhappy lot!

However, Dave has a fine, gentleman's vocabulary which any pack animal is apt to mistake for swearing, and we cantered rapidly along to Swamp Lake. This is a fifty-yard pond with a fence around it, and a gap in the fence used by livestock. Dave crept out on a log to deep water to fill the canteens and I assisted industriously in keeping back the vegetable and animal matter. We all partook freely of the polywog cocktail, but at the second round Frank's ruminations got the best of him.

"We ought to be arrested," he protested vehemently, "for taking them under six inches in length and not throwing them back." The idea

seemed to cling with him and, swallow as he would, he could not entirely drown the memory of what he drank. Finally his regard for the game laws became supreme, and with a groaning whoop he did throw them back with a vengeance, along with yesterday's catch, poor fellow! Dave was astonished at such a demonstration. As for him—well, the next day at Quaking Aspen Ranger Station, before a silvery stream from a pipe line, Dave gravely shook his head, remarking, "It has no 'body' to it!"

We parked the packs at Swamp Lake and proceeded light toward the Powell Saddle. Powell Plateau is like one of Charley's biscuits, just pinched off the main hunk of dough, forested over its flat top, and jammed tightly against the Kaibab at its far southwestern corner. The notch between these highlands is the Saddle, so deep that Frank at once constructed, in fancy, a tramway direct to the Powell platform.

The descent into the Saddle is on Bass' Trail, which is to say it is not a pike. It was hard to follow only in the sense of one's willingness to do so, having been worked chiefly with a field glass. We noted the ash piles of the signal fires formerly used by tourists, on this end of the S O S line, desiring to be let down more gently than by gravity to Bass' Ferry at the foot of the Muav.

We led or drove our mounts in order the better to dodge rolling rocks and preserve our bodies in case of a catastrophe. Frank, bringing up the rear, was behind his horse, to escape some of the heel-biting avalanche. Shortly he demanded a

picture of the scene on this cruel trail. "Take the picture; I'll make a lantern slide of it," he called gaily, "and I'll call it 'Damn-the-Boom-Gum! Bang! Bangity! Bang!' * * *." Our blood chilled with the horrible names he gave it, and then we were aware of a stampede among the livestock. The stiffened old pelters on this death-lurking declivity had suddenly become gamboling colts on a grassy meadow, striking, pawing, and running. Then we got sight of Frank in a swarm of hornets and a haze of arms and fists. He was outsparring the lightning itself and outswearing all the imps that inhabit the nether world.

With the butt of his heavy loaded quirt he sent to a horrible death one hornet that was planting a depth bomb behind his ear; and afterward he complained that being stung was like being hit with a rock! But the horses divided the enemy fire as they themselves dispersed and Frank made his escape. From a distance, as we surveyed the battle scene, it appeared that Frank, in passing, had playfully walloped with his quirt a tall, rotten tree snag, which yielded a stream of hot, leaden hornet bullets from a woodpecker hole. Frank was jaded with fatigue as he staggered on down the slope, but revived electrically once to smite with catapult blows from his hands a wandering house fly.

Powell Plateau is as bare as a picnic ground. Cougars and wild horses picnicked there for years, but now the place resembles the morning after. The forest is clean and graceful, but there are no copses, no green bushes, no grass, no water, noth-

ing but a shady floor of blackened pine cones; overgrazed and neglected!

The vanishing white tail squirrel, native to the Kaibab, but now almost extinct, barked at us now and then with a sort of good-bye call. Over in Kanabonits Canyon a white plume went flickering up the slope; and another, back of the Shinumo, gave us a pretty tail laugh. But on Powell Plateau we were especially entertained by a bashful gamester playing hide and seek among the branches. He volplaned a yard or two in passing from one tree to another at a great height, using his tail efficiently as a plane. Charley says he has seen them sail twenty feet in this manner and make a safe stop on a resilient limb.

Dave led us first to the northwestern extremity of the plateau, overlooking Tapeats amphitheatre. From here the plateau walls, the Saddle and the Kaibab rim are beautiful features in the picture, being new phases of the Grand Canyon architecture. The Colorado River is visible at two or three places but the spots, being shaded from the sun, are not brilliant. The vastly wide cavity is exasperatingly drab and silent, almost asleep, in the noonday sun. Tapeats Butte, a lofty steamboat-shaped form, has the distinguishing crossbedded sandstone capping. We tried in vain to draw out of the view to the north the identifiable features of Quaking Aspen Outlet, Thunder River Gorge, and other places deadened in the haze, but Pegasus alone could transport us directly to them across the void.

Kanab Canyon is visible far to the west, open-



Photos by George C. Foweraker
 Dutton Point, Powell Plateau; and Tapents Butte, Tapents Amphitheatre,
 Off Powell Plateau. *Below:* The Grand Canyon of Arizona, South
 easterly from Dutton Point, Showing Colorado River

ing into the Grand Canyon like a crack in the landscape; and Cataract Canyon is an opposite streak from the south. Dave pointed out Mounts Trumbull, Emma, Logan, Dellenbaugh and many other volcanic cones in the Uinkarets, fifty miles to the west, as well as the hazy forms of Pine Valley Mountain and the Temples of Zion Park, nearly a hundred miles northwest.

Dutton Point was the scintillating jewel of the journey, on the southeasterly extremity of Powell Plateau, where we spent the afternoon. Here Moran, the famous artist, came to execute his contract for a ten thousand dollar picture, so we were told; and Dave points out the artist's easel rests at the point. Most of the money must have gone for transportation, Frank opines, but unquestionably the landscape from Dutton Point is one of the finest in the entire North Rim country.

Point Sublime forms the southeastern horizon in the view, and to the southwest is a labyrinth of figures, fissures and gorges. Directly off Dutton Point toward the southeast in the bottom of the Canyon is a burnished strip of the Colorado River, about six and one-half miles in length. This is the longest expanse of river visible from either rim. Three other bits of the stream, one of them a few miles in length, are visible from here, but they were shaded and were not spectacular.

The distances are incomprehensible, as elsewhere across the canyon, and the features are as fixed and unfathomable as the constellations in the heavens. Beside us is a Government bench

mark, 7555 feet above the sea, and, only three and three-quarters miles distant, the near end of the bright strip of river is shown on the maps to be at 2250 feet elevation, or just one mile and twenty-five feet below us! The stream appears as a mere scratch, though it is from four hundred to six hundred feet wide.

Directly beyond the visible section of the stream, up the river, it is from fifteen to twenty-five miles to the South Rim. Point Sublime is about nine miles distant, and the Grand Scenic Divide, coming out from the south as far as it can, is yet a full seven miles handshake away. The finely figured green roof of the Masonic Temple, covering several square miles, rests like a fancy hassock before the throne seat on Dutton Point.

Canyons, temples, castles, terraces, abysses, ridges, promontories, points and aisles, all with proper names, figure the map of the canyon foreground like the waves of the sea. But the whole region in the declining afternoon sun, sixty days from a good rain or wind storm, resembles the smoking ruins of a sweeping conflagration.

As Dave looked at his watch we heard a sound floating up from the hazy depths. We listened intently and discerned the strangling call of braying burro, one of the half-wild creatures that inhabit the region.

"That," said Dave, turning away with a gesture, "is what becomes of tourists who don't get over the Saddle before dark!"

